WITkit Lite

User Manual

Version 1.4

16.11.2011

Thatcham

DSD
Dr. Steffan Datentechnik
Linz - Austria

WITkit Lite
Whiplash injury toolkit
© Dr. Steffan Datentechnik, Linz, Austria

Software Version 1.2.0.14

Warning: This software and manuals are provided AS IS, without warranty as to their merchantability or fitness for any particular purpose. The user assumes the entire of risk of using the results of this software.

Warning: This software is protected by copyright laws and international treaties. Its reproduction or duplication will be prosecuted to the maximum extent possible under the law.

Contents

LIST OF FIGURES **7**

1.0 DISCLAIMER **9**

2.0 WITKIT LITE **10**

2.1 LOGIN 10
2.2 INSTALLING SILVERLIGHT 10
2.3 SCREEN RESOLUTION 14
2.4 MOVING THROUGH SCREENS 14

3.0 HELP AND FEEDBACK **15**

4.0 NOTES **17**

5.0 NEW CASE **18**

6.0 VEHICLE SELECTION **19**

6.1 LICENCE PLATE SEARCH: 19
6.2 MANUAL VEHICLE SEARCH: 20

7.0 ACCIDENT DESCRIPTION **22**

7.1 WAS THE CRASH FRONT INTO REAR AS SHOW BELOW? 22
7.2 IS THE CRASH CONTACT ACROSS THE WHOLE VEHICLE FRONT/REAR? 22
7.3 WHERE DID THE CRASH OCCUR? 23
7.4 WAS THE CAR AT THE STOP LINE OR IN THE QUEUE? 24

8.0 DAMAGE DESCRIPTION **25**

8.1 DAMAGE DESCRIPTION INFORMATION 25
8.2 DAMAGE INCOMPATIBILITY WARNING 26
8.3 DAMAGE DESCRIPTION STRIKING VEHICLE 28
8.3.1 Is there any visible damage to the vehicle? *28*
8.3.2 Is the damage so bad that the vehicle cannot be physically driven? *28*
8.3.3 Did the airbags deploy? *28*
8.3.4 Did the seatbelts lock and will no longer retract? *29*
8.3.5 Is the damage severe? (e.g. are the headlamps and grille broken and bonnet/wings severely distorted.) *29*
8.3.6 Does the bumper cover have a similar level of damage? *29*
8.4 DAMAGE DESCRIPTION STRUCK VEHICLE 31
8.4.1 Did the crash affect the opening of the doors? *31*

8.4.2 Is the damage severe? (e.g. the rear wings creased or rear doors of a 4dr car hard to open) 31

8.4.3 Is the damage moderate? (e.g. bumper cover broken, torn or split?) 31

8.4.4 Is there a similar level of damage to the bumper? (e.g. broken tail lamps and dented tailgate or boot lid) 32

8.4.5 Is the damage light? 33

8.5 DAMAGE REFERENCES: STRIKING VEHICLE DAMAGE QUESTIONS 34

8.5.1. No Damage 34

8.5.2. Minor Scratches and/or paint transfer 34

8.5.3 Vehicle cannot be physically driven. 34

8.5.4. Airbag deployment 35

8.5.5. Seatbelts locked 35

6. Severe damage (engagement crash) 35

8.5.7. Severe damage (underride crash) 35

8.5.8. Moderate damage (engagement crash) 36

8.5.9. Moderate damage (underride crash) 36

8.6 DAMAGE REFERENCES: STRUCK VEHICLE DAMAGE QUESTIONS 37

8.6.1. No Damage 37

8.6.2. Minor scratches and/or paint transfer 37

8.6.3 Vehicle cannot be physically driven. 37

8.6.4. Door opening 38

8.6.5. Severe damage 38

8.6.6. Moderate damage (engagement crash) 38

8.6.7. Moderate damage (underride crash) 39

8.6.8. Light damage (engagement crash) 39

9. Light damage? (Underride crash) 39

9.0 STRUCK VEHICLE INJURY RISK 40

10.0 PDF REPORT 42

11.0 SAVING 43

12.0 INCOMPLETE CASES 44

13.0 OPENING AN EXISTING CASE 45

14.0 WALKTHROUGH EXAMPLES 46

14.1 EXERCISE 1 46

14.1.1 Step by step guide to answering Exercise 1. 47

14.2 EXERCISE 2 52

14.2.1 Step by step guide to answering Exercise 2. 53

14.3 EXERCISE 3 57
14.3.1 Step by step guide to answering Exercise 3. 58

15.0 FAQ'S 61

15.1 What should you do if you have any problems using WITkit Lite? 61
15.2 What should we do if there appears to be a functionality problem with the WITkit software? 61
15.3 What should you do if the WITkit Lite page does not appear, but an Icon for Silverlight does? 61
15.4 What should you do if the aspect of your WITkit page is not correct ? 61
15.5 Can we update/delete the notes which are left on a WITkit assessment? 62
15.6 What do you do if the VRM Lookup can not locate the vehicle? 62
15.7 Why can the VRM Lookup not find some vehicles? 62
15.8 What should you do if the vehicle is more than 15 years old and therefore not on the WITkit database? 62
15.9 With offset collisions when do you say that the impact is across the whole of the vehicle as opposed to a particular corner? 63
15.10 Why isn't there a queue option for the roundabout? 63
15.11 What should you do if you only really know details of damage to one or other vehicle? ... 63
15.12 If we are unaware or unsure of the answer to a particular damage question what is it best to do? 64
15.13 What is meant by "visible damage" 64
15.14 Is there something in between light and moderate damage (i.e. scratches and torn or split)? 64
15.15 What does it actually mean when there is a yellow warning box which states "Damage is not compatible for the two vehicles"? 65
15.16 If you have entered the data as best you can based on the information available how can you resolve the yellow warning symbol "Damage is not compatible for the two vehicles"? 65
15.17 If we know there is a passenger but we do not know their exact position where would it be best to place them on the injury risk screen diagram? 65
15.18 If we are unaware of the gender of the passenger should we enter them as male or female? 65
15.19 At what age should a passenger be regarded as an adult as opposed to a child? 65
15.20 Why are some of the injury risk ranges so wide? 66
15.21 Can WITkit calculate an injury risk for passengers where the Policy Holder has reversed into a third party vehicle? 66
15.22 Does it make any difference if the struck vehicle has a tow bar? 66

15.23 What should you do if the striking vehicle is a little older and has bull bars fitted? Should this make any difference in WITkit / our consideration of the injury risk calculation? 67
15.24 What should you do if the car has an LPG conversion? 67

LIST OF FIGURES

Figure 1. First screen without Silverlight – Click to install Silverlight. 11
Figure 2. Prompt to download – Click ‘Run’ to install Silverlight. 11
Figure 3. Download status when installing Silverlight. 12
Figure 4. Click ‘Install now’ button to install downloaded Silverlight software. 12
Figure 5. Silverlight status. 13
Figure 6. Silverlight installation successful message. 13
Figure 7. Click 'Next' or 'Previous' to move forward or backward through the screens. 14
Figure 8. Help icon. 15
Figure 9. Feedback icon in top right corner of screen. 15
Figure 10. Notes can be written in the bar at the bottom of the page. 17
Figure 11. Creating a new case. 18
Figure 12. License plate search box search. 20
Figure 13. Completed Vehicle Selection. 21
Figure 14. Front into rear crash. 22
Figure 15. Crash contact illustration. 23
Figure 16. Where did the crash occur? Drop down menu. 23
Figure 17. Vehicle position at a junction. 24
Figure 18. Incompatibility Warning 26
Figure 19. Collision conditions: Underride (left) and Engaged (right). 27
Figure 20. Damage so severe, this car is physically unable to be driven. 28
Figure 21. Bumper cover and grille panels torn and loose. 29
Figure 22. Vertical spread of damage compared to damage only above the bumper beam. 30
Figure 22. Severe rear end damage with distortion to rear wing. 31
Figure 23. Moderate damage to the rear with no rear wing distortion but damage to bumper and boot/tailgate that will require replacement. 32
Figure 24. The left car shows damage to the bumper, the right car shows damage reaching the boot lid. 33
Figure 25. Struck Vehicle Injury Risk Layout. 40
Figure 26. Occupant's Injury Risk. 41

Figure 27. PDF icon for creating a PDF report. 42
Figure 28. Save icon for saving the case. 43
Figure 29. ‘Incomplete case’ box for marking the file as incomplete. 44
Figure 30. Use Search to select an existing case. 45

1.0 DISCLAIMER

The WITkit Lite Software Product is designed to identify whiplash injury risk in cases of rear struck vehicle collisions. The definition of injury risk is based on predicted energy changes and known vehicle construction characteristics in standardised crashes using published databases and recognised injury risk predictions. The product can only approximate injury risk for any given circumstance and is only applicable to occupants of the struck vehicle. The WITkit risk calculation cannot be used to definitively identify whether any particular individual is or isn’t actually injured.

2.0 WITKIT LITE

2.1 Login

- Go to www.witkitlite.com in your internet browser.
- You will be asked to download Microsoft® Silverlight (if it is not already installed), download this and then refresh WITkit Lite. For instructions on installing Silverlight see section 2.2 of this manual.
- If you experience any problems with your login please send an email stating your problem to witkitlite@dsd.at
- Please be patient as a white screen will appear whilst WITkit Lite loads.
- The initial software load can take up to 5 minutes, but once it is installed subsequent access will be immediate.
- If the software is updated there may be another re-load of the software so you may have to wait a short while.
- When WITkit Lite has loaded, you will be asked to enter your Username and Password then press next.
- Note that the password is case sensitive
- If you have lost your Login details, please click on the feedback icon at the top of the screen and send us your information so that your login can be retrieved.

2.2 Installing Silverlight

- To be able to use WITkit Lite you need to have installed the plug in Microsoft® Silverlight™ . WITkit Lite will not run without this platform, follow the instructions below to install Silverlight™.

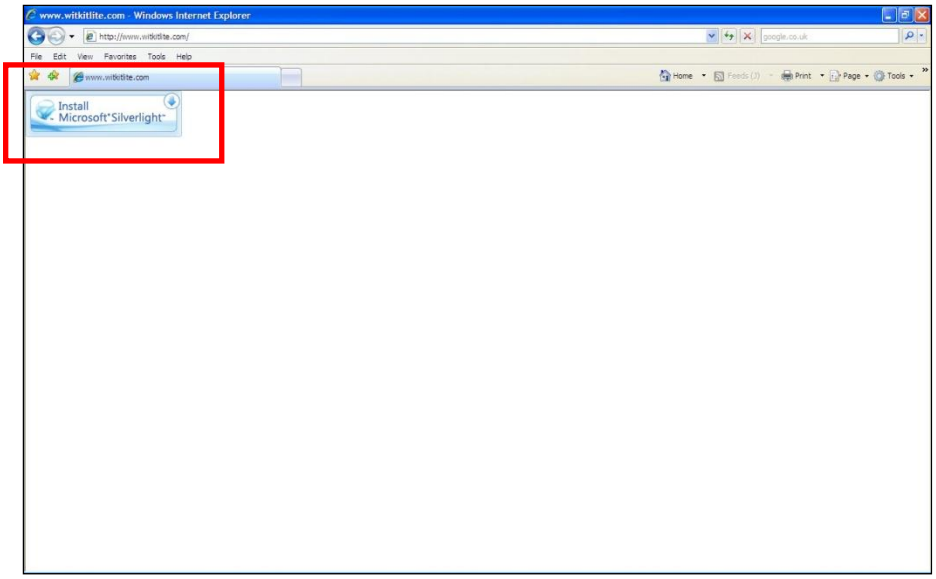


Figure **1**. First screen without Silverlight – Click to install Silverlight.

- Click on the icon to install Microsoft® Silverlight™
- A prompt will appear with the option to Run, Save or Cancel.
- Click 'Run' and the software will begin to download.

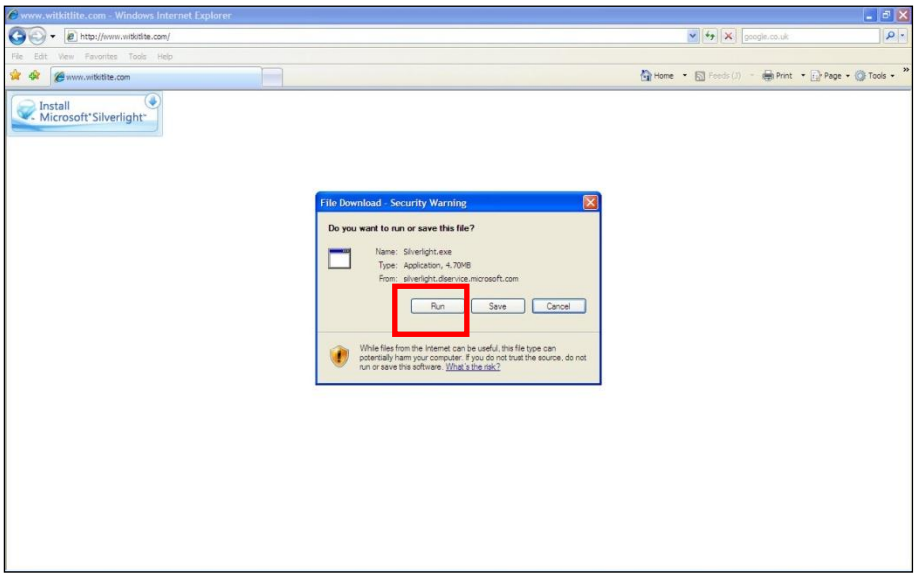

www.witkitlite.com - Windows Internet Explorer
Install Microsoft Silverlight
File Download - Security Warning
Do you want to run or save this file?
Name: Silverlight.exe
Type: Application, 4.70MB
From: silverlight.dlservice.microsoft.com
Run
Save
Cancel
While files from the Internet can be useful, this file type can potentially harm your computer. If you do not trust the source, do not run or save this software. What's the risk?

Figure **2.** Prompt to download – Click 'Run' to install Silverlight.

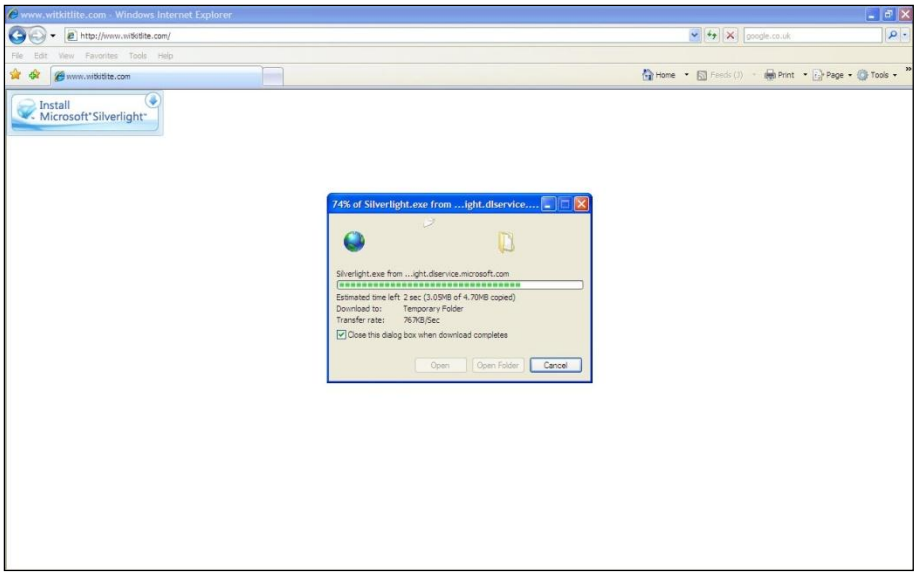


Figure 3. Download status when installing Silverlight.

- When the download is complete accept the next prompt by clicking on the 'Install Now' button.

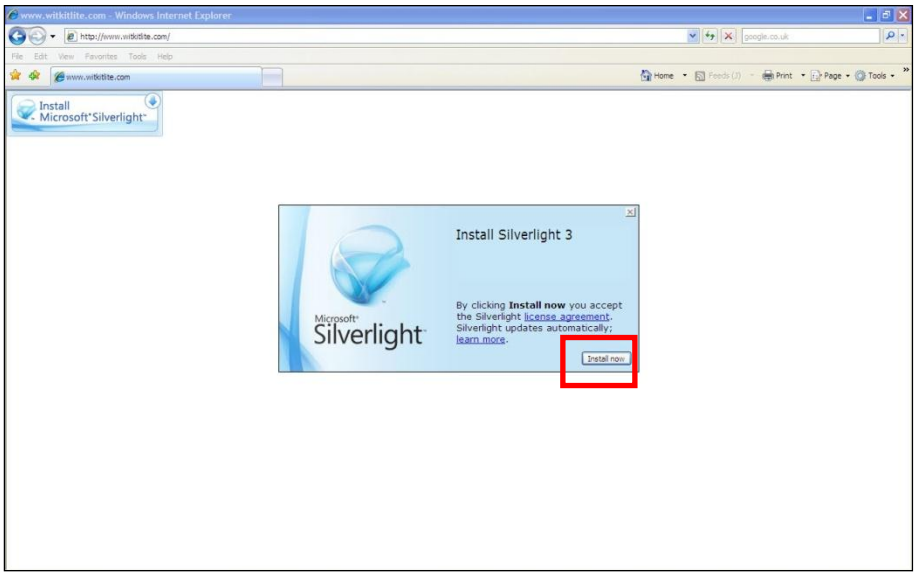

www.witkitlite.com - Windows Internet Explorer
Install Microsoft Silverlight
Install Silverlight 3
Microsoft Silverlight
By clicking Install now you accept the Silverlight license agreement. Silverlight updates automatically; learn more.
Install now

Figure 4. Click 'Install now' button to install downloaded Silverlight software.

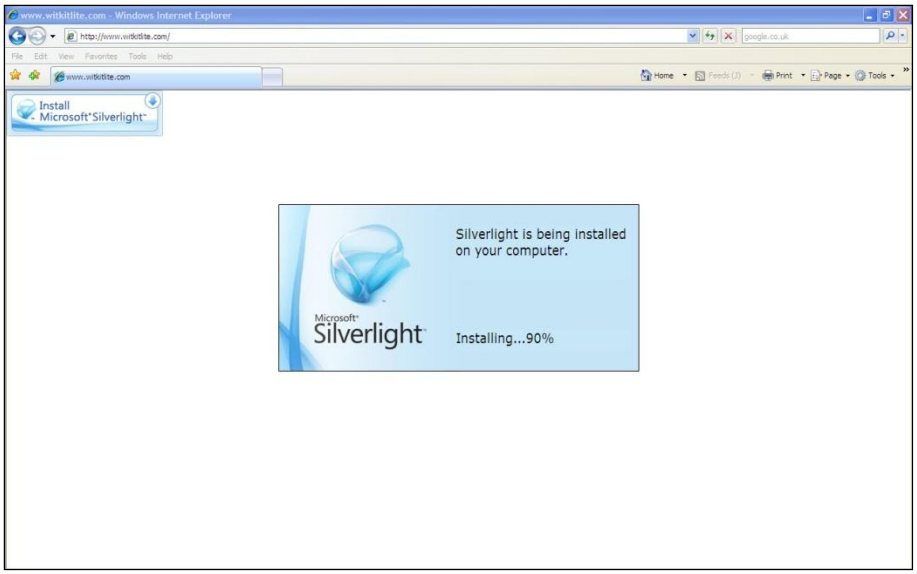


Figure 5. Silverlight status.

- When the download has successfully completed click the ‘Close’ button to close the download window.
- We recommend that you refresh your browser page before attempting to access WITkit Lite.

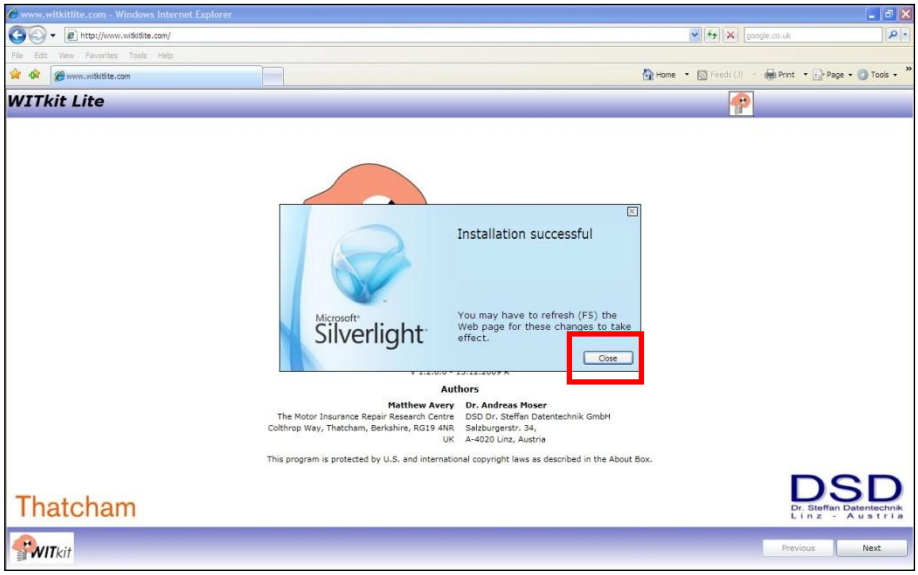


Figure 6. Silverlight installation successful message.

- After the browser page has been refreshed the WITkit Lite home page will appear, follow the login procedure. (See section 2.1 for instructions)

2.3 Screen resolution

- The recommended screen resolution to use for WITkit Lite is 1024 x 768.

2.4 Moving through screens

- Click **'Next'** to move forward to the next screen
- You may click **'Previous'** to go back and change any of the information.

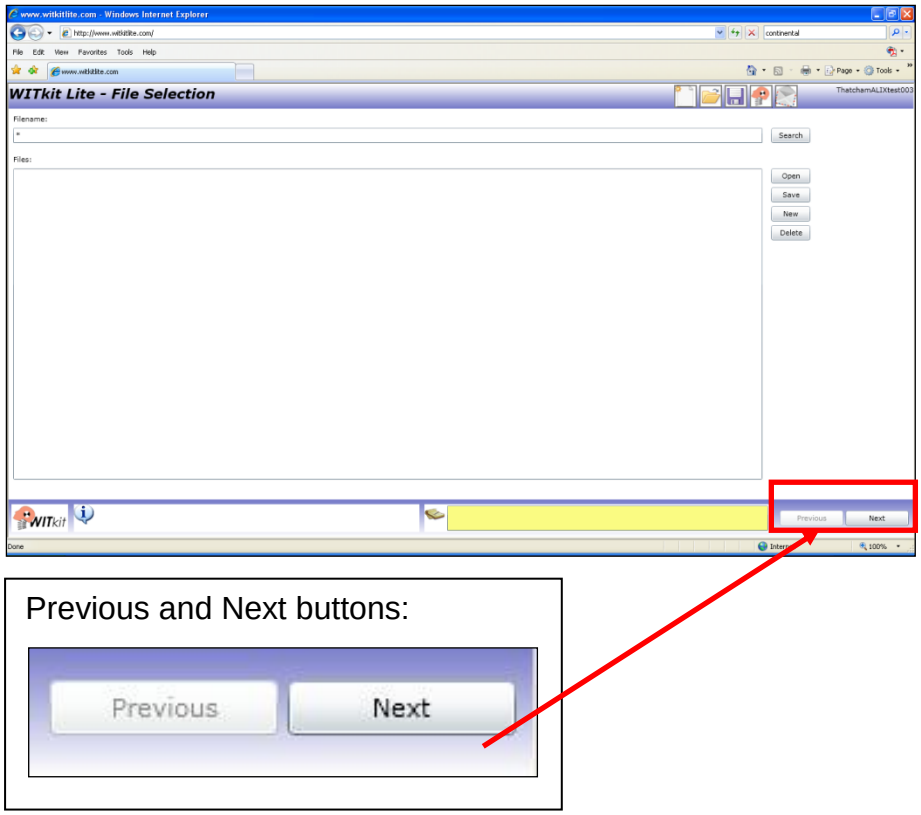


Figure 7. Click 'Next' or 'Previous' to move forward or backward through the screens.

3.0 HELP AND FEEDBACK

- If at any point you do not understand a question click the information icon next to the question to be directed to the user manual.

Figure 8. Help icon.

- If you do find a problem the user manual cannot solve, please click on the feedback icon at the top of the screen.
- You can then send an email with the details of your enquiry, and please try to include the following:
    - screen print
    - case number / file name
    - description of the problem
- Someone will be in touch to help with your query.

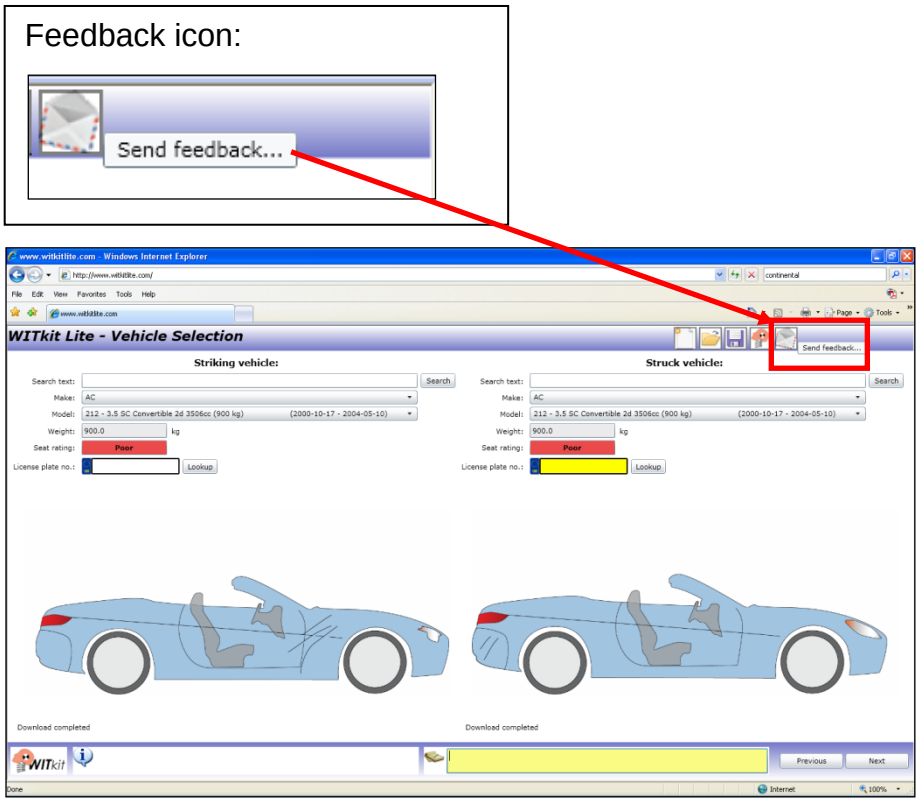


Figure 9. Feedback icon in top right corner of screen.

- If you cannot access WITkit Lite to register your problem using the help icon, please email your problem to witkitlite@dsd.at.
  Please include the details of your enquiry, and please try to include the following:
  - screen print
  - case number / file name
  - description of the problem

4.0 NOTES

- Any notes you may have whilst processing this claim can be written in the bar at the bottom of the screen.
- These notes will be added to the PDF report which can be printed out on completion.

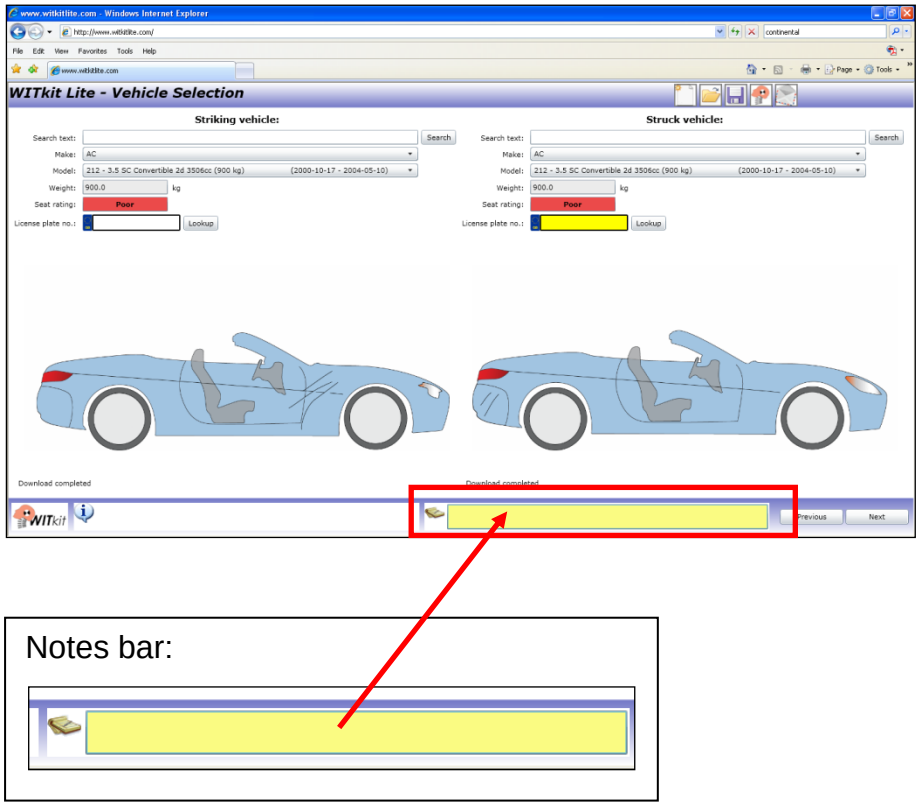


Figure 10. Notes can be written in the bar at the bottom of the page.

5.0 NEW CASE

- Click **‘New’** to create a new case.
- Enter your filename when prompted.
- Enter your ‘brand’ name when prompted.
- Then click **‘Next’** to move to the vehicle selection screen.

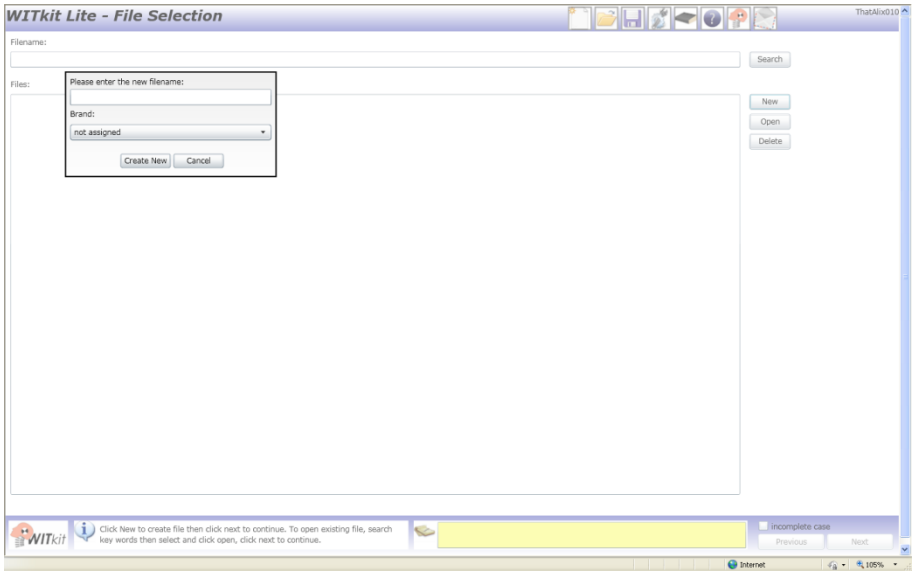


Figure 11. Creating a new case.

6.0 VEHICLE SELECTION

- This screen is where the user enters the details of the cars involved in the collision.
- The striking car appears on the left and shows the front (white) number plate.
- The struck car appears on the right and shows the rear (yellow) number plate.
- As an aid to memory: the white (front) plate will always hits the yellow (rear) plate.
- Note that these number plate colours are only relevant for UK number plates.

6.1 Licence Plate Search:

- This is also known as VRM Lookup (Vehicle Registration Mark).
- For the fastest most accurate results input the licence plate numbers for both the striking, and struck vehicle in the space provided.
- Click Lookup and wait for both vehicles to download.
- The vehicle weight and a seat rating will appear (see Figure 12).
- The VRM Lookup sometimes returns multiples vehicles, and you can see these in the drop down box. You should always review the vehicles offered and select the most appropriate one.
- Check that after inputting VRM that the Vehicle Make, Model, Weight and Seat rating have all been filled in, in the boxes above, before proceeding any further. It is essential that all these details are filled for WITkit to work.
- If the VRM Lookup fails and cannot find the vehicle in the database, it can sometimes provide some data in the top search box. If you then run a manual search you might be able to find the vehicle correctly. In this case remove all the vehicle details apart from the Make, Model and Year from the search box, and then click ‘Search’ again. This might provide a list of suitable options for you to choose from.

- When all fields are filled and you have the correct vehicles shown click **'Next'**.

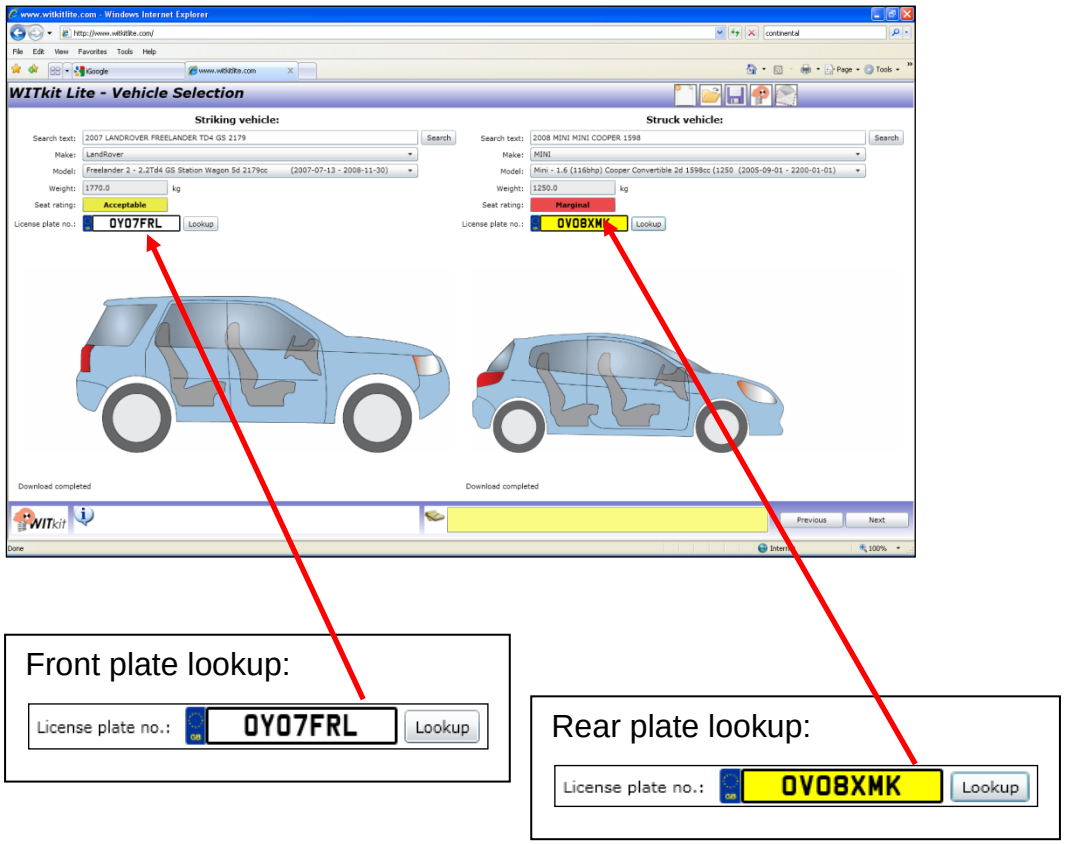


Figure 12. License plate search box search.

6.2 Manual Vehicle Search:

- Use the **Search text** facility to speed up the manual vehicle selection process.
- Use the **Model** scroll bar to select the exact range description and model year of the car.
- When the **Make** and **Model** are selected the vehicle weight and a seat rating will appear (see 13).
- The manual search sometimes returns multiples vehicles, and you can see these in the drop down box. You should always review the vehicles offered and select the most appropriate one.
- Check that after inputting VRM that the Vehicle Make, Model, Weight and Seat rating have all been filled in, in the boxes above, before

proceeding any further. It is essential that all these details are filled for WITkit to work.

- When all fields are filled and you have the correct vehicles shown click **'Next'**.

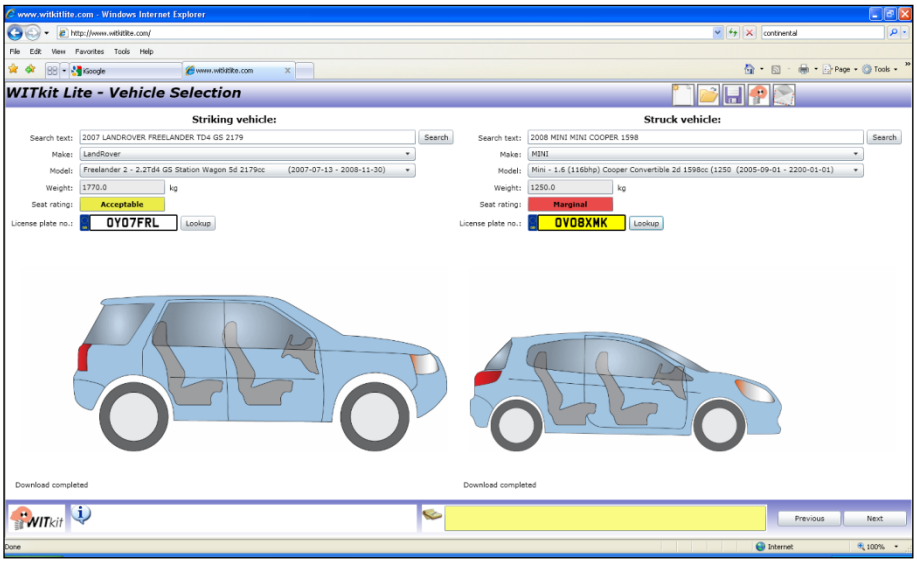


Figure 13. Completed Vehicle Selection.

7.0 ACCIDENT DESCRIPTION

WITkit can only calculate the risk of injury of an occupant in the struck car in a front-into-rear crash. One example of this type of crash is those occurring at traffic lights.

In order to verify that the claim under investigation is a front into rear crash the following question must be answered:

7.1 Was the crash front into rear as show below?

- If you answer **NO** to this question WITkit Lite can not be used to investigate this claim.
- This question can only be answered with a **YES.**
- WITkit Lite is only applicable for a front into rear crash as in Figure 14.

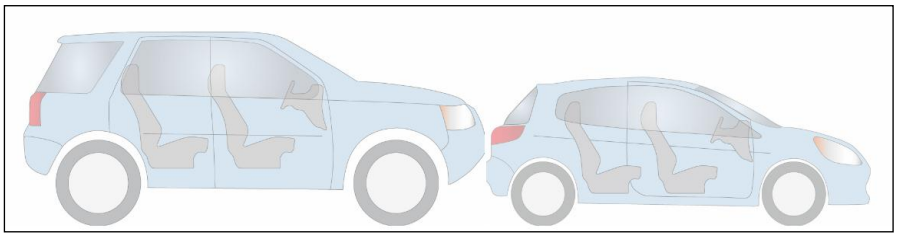


Figure 14. Front into rear crash.

7.2 Is the crash contact across the whole vehicle front/rear?

- Contact between the cars influences the energy transfer in the collision.
- Contact across the whole vehicle assumes that the contact between the two vehicles has overlapped by at least 50% e.g. both headlamps or the whole of the bumper has made contact, and this is illustrated as a **YES** in Figure 15.
- Answer **NO** if one side of the vehicle is particularly damaged and the other side not, indicating a crash as illustrated as NO in Figure 15.

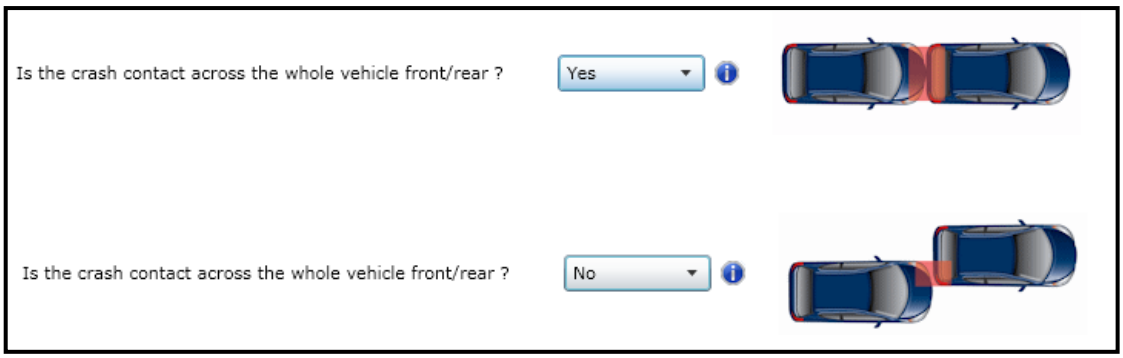


Figure 15. Crash contact illustration.

7.3 Where did the crash occur?

- Injury risk changes depending on whether the occupant is ‘in position’ e.g. seated in a normal straight ahead position, or ‘out of position’ e.g. head turned or leant forward.
- Crash location definitions:
  - Road = Middle of the street or road, not near a junction.
  - Junction = Cross roads, junction, or turning where traffic is joining another road. Controlled by a stop or give way sign/line or by a traffic light. Includes slip roads where traffic is merging into another high speed road.
  - Roundabout = Traffic island where vehicles merge into other roads, but do not necessarily stop moving. Includes roundabouts that are controlled by traffic lights.
- Select from the drop down menu whether the crash occurred at a **junction, roundabout, road.**

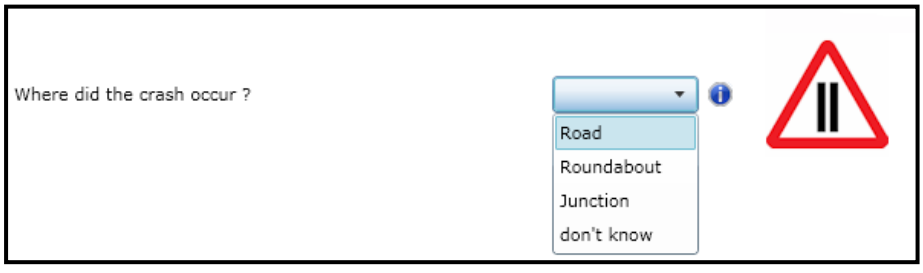


Figure 16. Where did the crash occur? Drop down menu.

7.4 Was the car at the stop line or in the queue?

- In order to judge the likelihood of the driver being out of position these questions aim to clarify the exact position of the car in the crash.
- If the crash occurred at a **'Junction'**, and the struck car was first or second in line, select at the **'Stop line'**. (See Figure 17)
- If the car was further back in line select in the **'Queue'.** (See Figure 17)

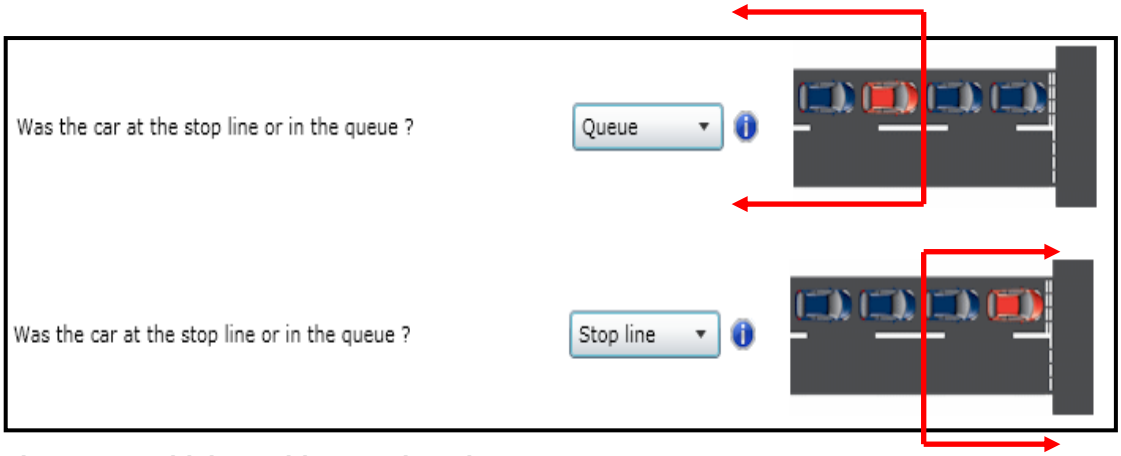


Figure 17. Vehicle position at a junction.

8.0 DAMAGE DESCRIPTION

8.1 Damage Description Information

- This key section is used to judge the speed of the crash and the subsequent energy transfer.
- It is important in determining injury risk that the damage of both vehicles is entered – preferably based on photographic evidence.
- However a good indication of energy transfer can be gauged by dividing damage into 4 broad areas:

	Front of striking vehicle	**Rear of struck vehicle**
No damage	No damage – including minor scratches and marks that would not require repainting	
Light damage		e.g. Bumper cover scratched
Moderate damage	e.g. Headlamps and/or grille damaged but not broken, bonnet dented	e.g. Bumper cover broken, torn or split
Severe damage	e.g. Headlamps and grille broken, bonnet/wings severely distorted	e.g. Rear wings creased or rear doors of 4 door car hard to open

Table 1. Levels of damage for the front and rear of the car: None, Light, Moderate, Severe.

- Where the damage is **only known for one vehicle** the user should aim to match the damage severity by selecting similar damage patterns for the second vehicle.

8.2 Damage incompatibility warning

- If any of the answers inputted into the drop down menus are incompatible with any of the previous answers (e.g. the damage of one vehicle does not match with the corresponding damage of the other vehicle) an exclamation mark will appear beside the question. (See figure 18)

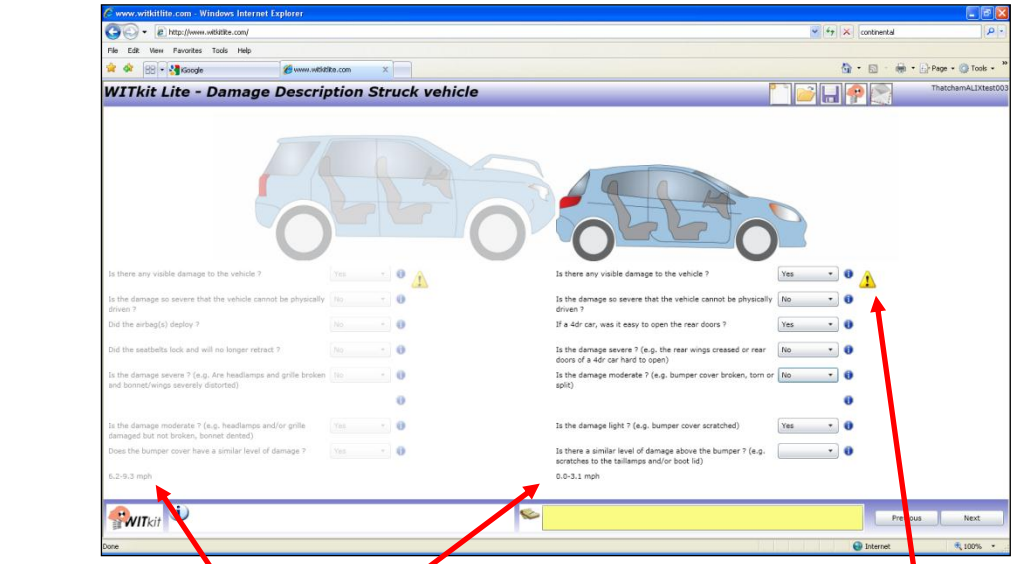

WITkit Lite - Damage Description Struck vehicle
Check the speeds at the bottom of the screen
Incompatibility warning symbol

Figure 18. Incompatibility Warning

- The most important point to check is the interaction between the vehicles. An engagement collision condition is shown with the vehicle(s) being level. An underride collision is shown with the front of the vehicle(s) being lowered in comparison to the rear. It is important to check that both vehicles show the same collision condition, otherwise a warning will appear. If the warning appears then this indicates a mismatch, and could indicate some discrepancy in the collision details entered. Check your answers to the questions.

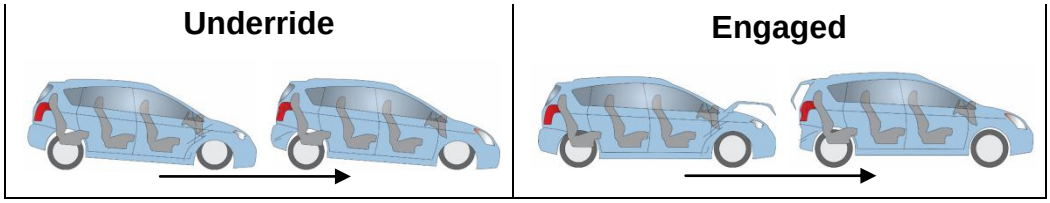


Figure 19. Collision conditions: Underride (left) and Engaged (right).

- The user should aim to ensure that damage levels are similar between the striking and struck vehicles. The user should check that the damage severity speeds for the two vehicles is similar, and that the damage description is similar (e.g. both vehicles have moderate damage).

  However the most important point to check is the collision condition (underride/engagement). If the user finds that it is not possible to match the collision condition as well as the speed/damage, then the collision condition should be matched and the speed/damage left as not matching.
- If the warning is displayed go back and thoroughly check all the information entered is correct before proceeding further.

8.3 Damage Description Striking Vehicle

8.3.1 Is there any visible damage to the vehicle?

- Answer **YES** if the vehicle has any marks, scratches or broken components.

8.3.2 Is the damage so bad that the vehicle cannot be physically driven?

- Answer **YES** if the vehicle is physically unable to be driven e.g. fluids were leaking, tyres deflated, or the engine would not start.
- Not if the only problem is that it is unable to be driven legally, e.g. not if it has broken rear lights or the exhaust has been detached. (See Figure 20)

Figure 20. Damage so severe, this car is physically unable to be driven.

8.3.3 Did the airbags deploy?

- This question is only applicable to post 1994 cars.
- Note, if only side airbags have been deployed impact cannot be assumed to be front to rear and WITkit should not be used.

8.3.4 Did the seatbelts lock and will no longer retract?

- In severe crashes seatbelts automatically retract and lock. Many belts have pre-tensioners designed to pull the seatbelt in. In most severe cases the belt will no longer function correctly and a warning light will illuminate on the dashboard. This situation is only relevant to the striking vehicle in frontal crashes.

8.3.5 Is the damage severe? (e.g. are the headlamps and grille broken and bonnet/wings severely distorted.)

- Answer **YES** if the front of the car is seriously damaged. (See Figure 21)

Figure 21. Bumper cover and grille panels torn and loose.

8.3.6 Does the bumper cover have a similar level of damage?

- It is important to identify whether the vehicle engagement is bumper to bumper, defined as ‘Engagement’. Or whether the striking vehicle has slipped under the struck vehicle, defined as ‘Underride.’
- Typical damage in an Underride collision will be higher levels of damage to the upper structure of the striking car (e.g. bonnet, wings, headlamps), but lower levels of damage to the bumper.

- Answer **YES** if the bumper cover is also severely damaged. (See Figure 22)

Vertical spread of damage above and below bumper beam

Engagement

Damage only above bumper beam

Underride

Figure 22. Vertical spread of damage compared to damage only above the bumper beam.

8.4 Damage Description Struck Vehicle

8.4.1 Did the crash affect the opening of the doors?

- Only applicable to four door vehicles where a severe crash can deform the body to the point where rear doors cannot readily be opened.
- If the struck vehicle has 2 doors (e.g. only front doors) the user should select **'Yes.'**

8.4.2 Is the damage severe? (e.g. the rear wings creased or rear doors of a 4dr car hard to open)

- The rear wing of a car is typically the panel above the rear wheels. Damage would include physical deformation, bending or denting but would not include just scratches or minor paint loss. (See Figure 23)

Figure 23. Severe rear end damage with distortion to rear wing.

8.4.3 Is the damage moderate? (e.g. bumper cover broken, torn or split?)

- A broken or deformed bumper cover would be one that is loose and hanging from the vehicle or one with deep tears, dents and splits. The component would typically require replacement. (See Figure 24)

Figure 24. Moderate damage to the rear with no rear wing distortion but damage to bumper and boot/tailgate that will require replacement.

8.4.4 Is there a similar level of damage to the bumper? (e.g. broken tail lamps and dented tailgate or boot lid)

- It is important to identify whether the vehicle engagement is bumper to bumper, defined as ‘Engagement’. Or whether the striking vehicle has slipped under the struck vehicle, defined as ‘Underride.’
- Typical damage to the struck car will have greater damage lower down on the rear bumper and exhaust, and less damage by the boot lid with rear lights that are typically undamaged.
- Answer **‘YES’** if there is damage to the bumper and there is evidence of damage to other components such as the lamps, boot lids and tailgates. (See Figure 25)

Underride **Engagement**

Figure 25. The left car shows damage to the bumper, the right car shows damage reaching the boot lid.

8.4.5 Is the damage light?

- Answer **YES** if there are some deep scratches, paint loss and/or very minor dents that require refinishing.

8.5 Damage references: Striking Vehicle Damage Questions

8.5.1. No Damage

Is the damage to the vehicle greater than minor scratches or paint transfer? No

Is the damage extremely minor i.e. no damage sustained at all or no parts require refinishing? Yes

No Damage to striking vehicle

8.5.2. Minor Scratches and/or paint transfer

Is the damage to the vehicle greater than minor scratches or paint transfer? No

Is the damage extremely minor i.e. no damage sustained at all or no parts require refinishing? No

Minor damage to striking vehicle

8.5.3 Vehicle cannot be physically driven.

Is the damage so severe that the vehicle cannot be physically driven? Yes

Damage to Striking vehicle so great that it can no longer be physically driven

8.5.4. Airbag deployment

Did the airbags deploy? Yes

Damage on a striking vehicle whose airbag has deployed.

8.5.5. Seatbelts locked

Did the seatbelts lock and will no longer retract? Yes

Damage on a striking vehicle where the seat belt would no longer retract

6. Severe damage (engagement crash)

Is the damage severe? (e.g. headlamps, grille, lights broken – bonnet and wings severely distorted – requiring replacement) Yes

Does the bumper cover have a similar level of damage? Yes

Damage for striking vehicle with severe damage - engagement

8.5.7. Severe damage (underride crash)

Is the damage severe? (e.g. headlamps, grille, lights broken – bonnet and wings severely distorted – requiring replacement) Yes

Does the bumper cover have a similar level of damage?

Damage for striking vehicle with severe damage - underride

8.5.8. Moderate damage (engagement crash)

Is the damage moderate? (e.g. headlamps and/or grille damaged, bonnet dented) Yes

Does the bumper cover have a similar level of damage? Yes

Damage for striking vehicle with moderate damage - engagement

8.5.9. Moderate damage (underride crash)

Is the damage moderate? (e.g. headlamps and/or grille damaged, bonnet dented) Yes

Does the bumper cover have a similar level of damage? No

Damage for striking vehicle with moderate damage - engagement

Note: This damage reference is only a guide to help assess the level of damage – it is not a prescriptive list. Users should assess and use judgement for each case to describe the damage level.

8.6 Damage references: Struck Vehicle Damage Questions

8.6.1. No Damage

Is the damage to the vehicle greater than minor scratches or paint transfer? No

Is the damage extremely minor i.e. no damage sustained at all or no parts require refinishing? Yes

No damage to struck vehicle

8.6.2. Minor scratches and/or paint transfer

Is the damage to the vehicle greater than minor scratches or paint transfer? No

Is the damage extremely minor i.e. no damage sustained at all or no parts require refinishing? No

Minor scratches to struck vehicle

8.6.3 Vehicle cannot be physically driven.

Is the damage so severe that the vehicle cannot be physically driven? Yes

Damage to struck vehicle so great that it can no longer be physically driven

8.6.4. Door opening.

Did the crash affect the opening of the doors? Yes

Struck vehicle damage with door opening affected

8.6.5. Severe damage

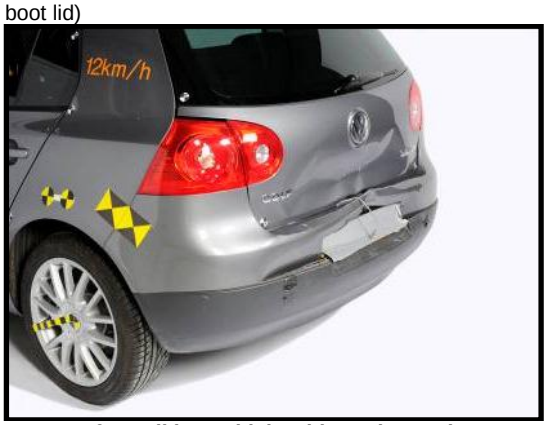
Is the damage severe? (e.g. the rear wings creased and boot lid or hatchback severely distorted – – requiring replacement) Yes

Damage for striking vehicle with severe damage

8.6.6. Moderate damage (engagement crash)

Is the damage moderate? (e.g. boot lid or hatchback distorted, rear lamps damaged) Yes

Is there a similar level of damage above the bumper? (e.g. broken tail-lamps and dented tailgate or boot lid) Yes



Damage for striking vehicle with moderate damage - engagement

8.6.7. Moderate damage (underride crash)

Is the damage moderate? (e.g. boot lid or hatchback distorted, rear lamps damaged) Yes

Is there a similar level of damage above the bumper? (e.g. broken tail-lamps and dented tailgate or boot lid) No

Damage for striking vehicle with moderate damage - underride

8.6.8. Light damage (engagement crash)

Is the damage light? (e.g. bumper cover damaged requiring replacement or refinishing) Yes

Is there a similar level of damage above the bumper? (e.g. scratches to the tail-lamps and/or boot lid) Yes

Damage for striking vehicle with light damage - engagement

9. Light damage? (Underride crash)

Is the damage light? (e.g. bumper cover damaged requiring replacement or refinishing) Yes

Is there a similar level of damage above the bumper? (e.g. scratches to the tail-lamps and/or boot lid) No

Damage for striking vehicle with light damage - engagement

9.0 STRUCK VEHICLE INJURY RISK

- Injury risk only relates to the occupants of the struck car.
- There is a different risk of injury depending on whether the driver or passenger is injured.
- The gender of the occupant also influences injury risk.

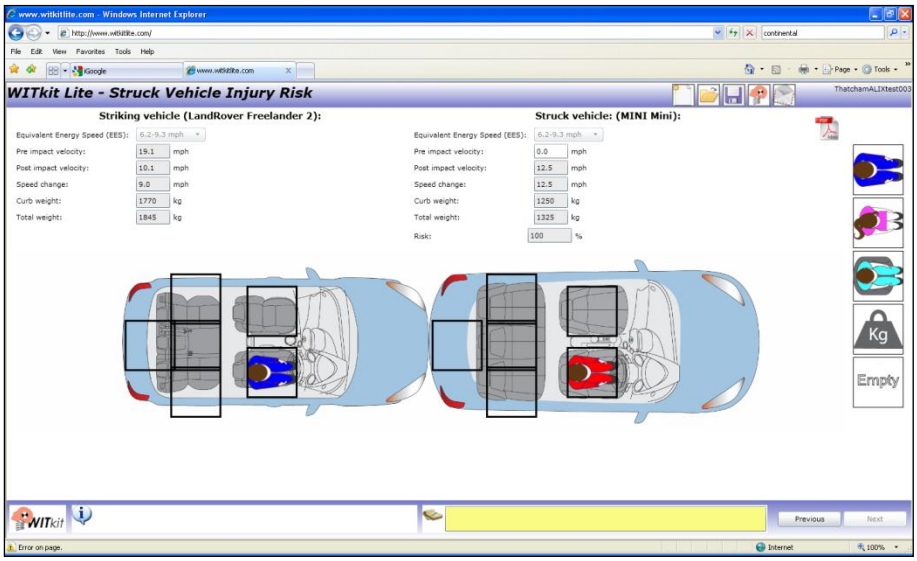


Figure 26. Struck Vehicle Injury Risk Layout.

- Drag and drop any passengers into the vehicles, inserting them into the seat they were sitting in at the time the crash occurred.
- The default driver is a male.
- If there is a female driver then drag the **'female'** icon onto the driver's seat and the male driver will be replaced.
- The child cannot be placed in the driver's seat.
- There is no specific gender for the child occupant.
- Occupant ages are defined as follows:
    - Adults are teenagers (over 12 years) to the elderly.
    - Children are aged 12 and under, including small children in child seats.
- Luggage is shown by the weight icon (kg) and can be dragged into any seat position (except the driver's seat).

  - This adds a generic 25kg and should only be used where it is known the vehicle is carrying a heavy load.
  - For light commercial vehicles (vans) the generic load is 500kg and should only be selected where it is known the vehicle was carrying a significant load.
- Any seat position or icon can be replaced/emptied by dragging the **'Empty'** icon to replace the unwanted icon.
- Injury risk is shown by two methods (as in Figure 27):
  - The occupant will change colour to represent the mid point of the injury risk bar
  - When the mouse pointer is held over the occupant an injury risk bar is shown that indicates the minimum and maximum for injury risk.
- Injury risk can only be used as guide and is not definitive.

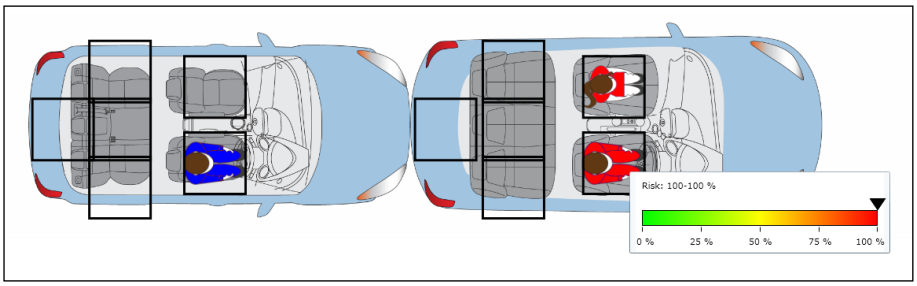


Figure 27. Occupant's Injury Risk.

10.0 PDF REPORT

- A pdf version summarising the selected crash, vehicle and occupant details can be viewed and printed. This shows all the selected questions and answers.
- Click the PDF icon in the top right hand corner for a detailed printable report.
- Please check that all details have been filled in correctly and are accurate when viewing the PDF.

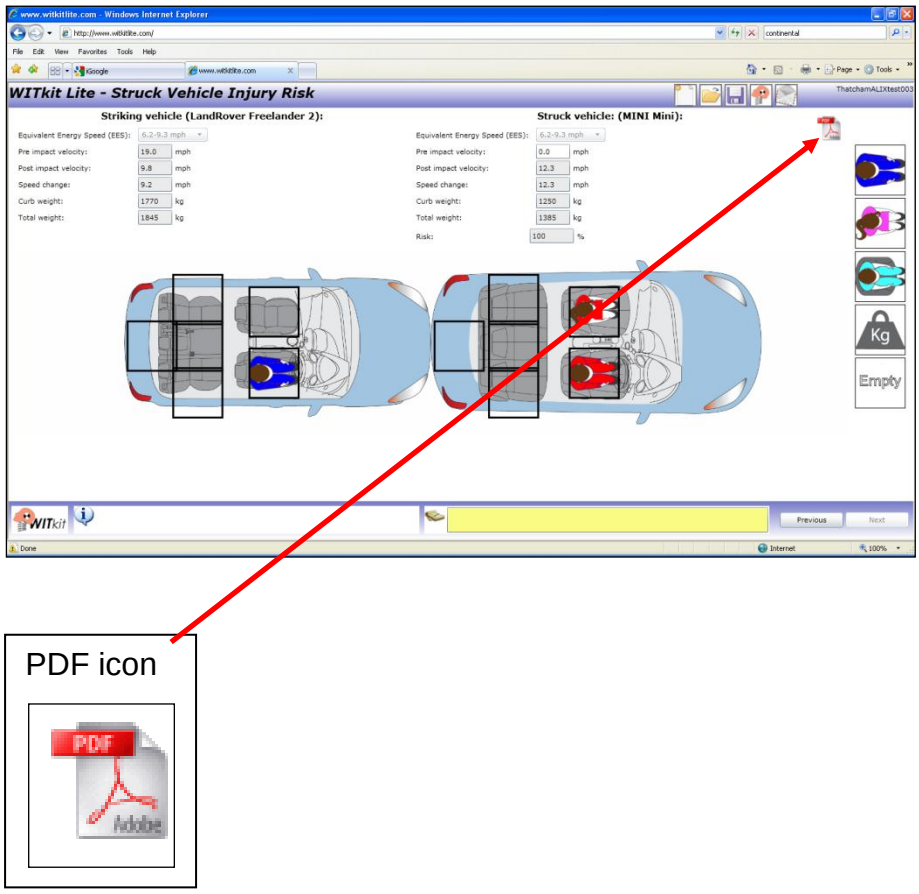


Figure 28. PDF icon for creating a PDF report.

11.0 SAVING

- Finally save the case by clicking on the save icon at the top of the screen.
- The save icon will move (flip over) when it is clicked and the file is properly saved.

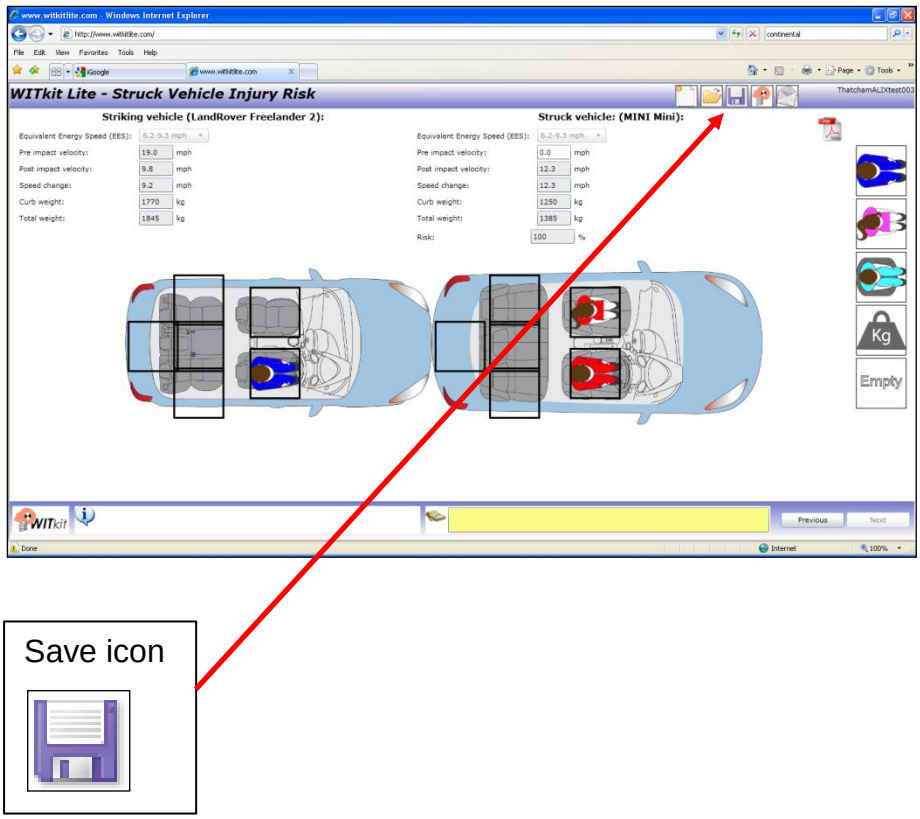
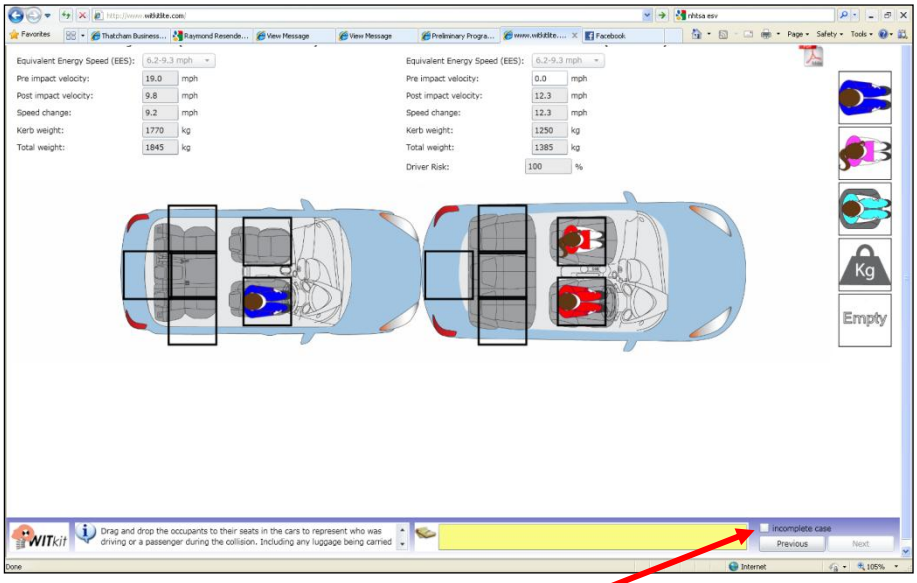


Figure 29. Save icon for saving the case.

12.0 INCOMPLETE CASES

- Select the ‘incomplete case’ box if the case is incomplete. This signifies that more details or checks are needed before an assessment can be made.



Incomplete case box:

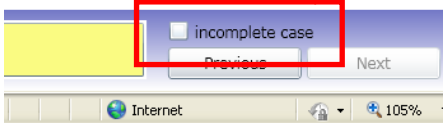


Figure 30. ‘Incomplete case’ box for marking the file as incomplete.

13.0 OPENING AN EXISTING CASE

- To open an existing case, click on **'Search'** and the list of the cases will be displayed.
- Select the case required.
- Click on **'Open'** and the case number will appear in the top right corner.
- Click **'Next'** to go to the vehicle selection screen.

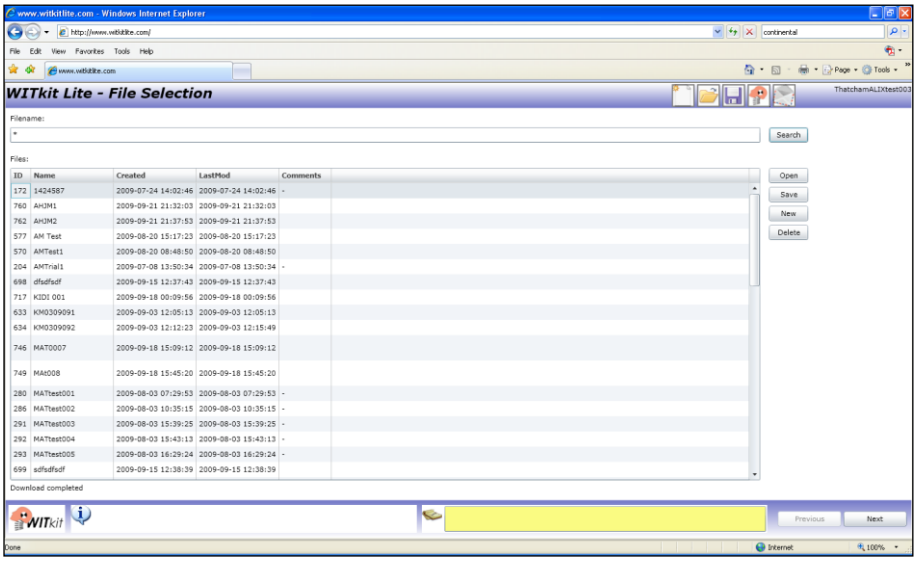


Figure 31. Use Search to select an existing case.

14.0 WALKTHROUGH EXAMPLES

Using the following accident information, use WITkit Lite to find the injury risk percentage. A step by step illustrated guide found overleaf will explain how to input the data correctly.

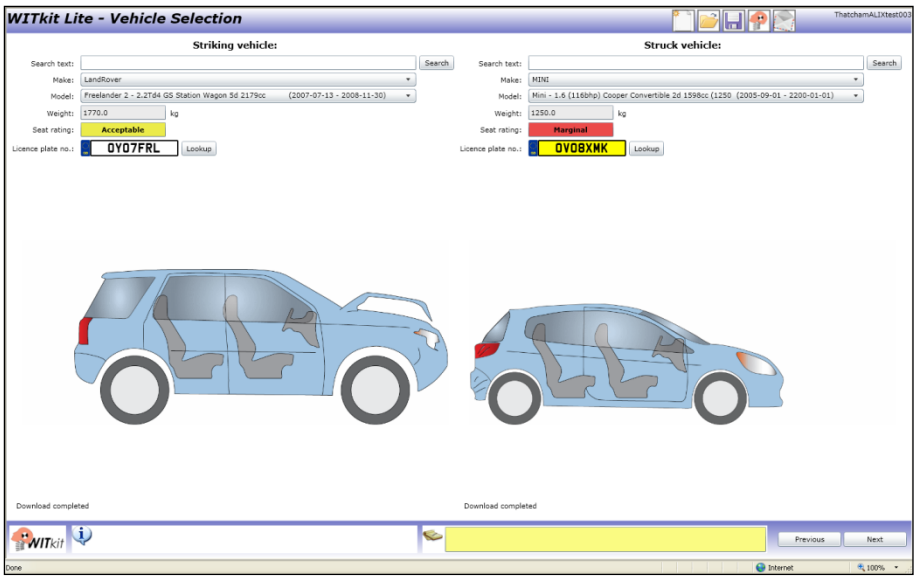
TP = Third Party

14.1 Exercise 1

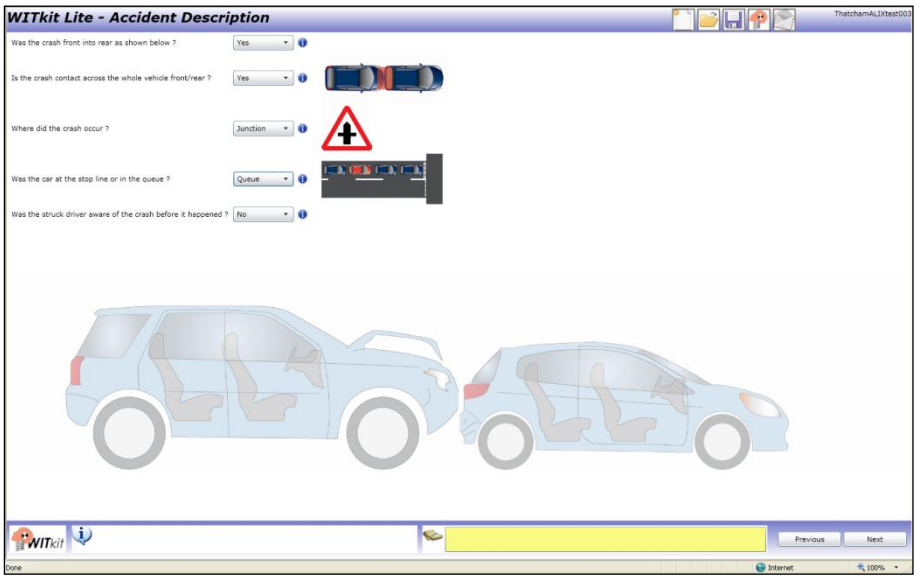
1. Incident Type – Accident – Car was left immobile.
2. Incident Cause – Third Party hit Insured in rear.
3. Incident Details – Mrs. Roberts was in the queue at a junction when the Third Party hit the rear of her vehicle unexpectedly.
4. Insured Struck Vehicle – Licence Plate number: OV08XMK.
   Mini 1.6 (116bhp) Cooper Convertible 2d 1598cc 2008
5. TP Striking Vehicle – Licence Plate number: OY07FRL
   Land Rover, Freelander 2 2.2TD4 GS Station Wagon 5d 2179cc 2007
6. Insured Struck Vehicle Damage – Bumper cover is scratched.
7. TP Vehicle Damage – Damage to the front grille and the bonnet has a few minor dents.
8. Insured Struck Vehicle Occupancy – Female driver only.
9. TP Striking Vehicle Occupancy – Adult male driver and adult male front passenger.

14.1.1 Step by step guide to answering Exercise 1.

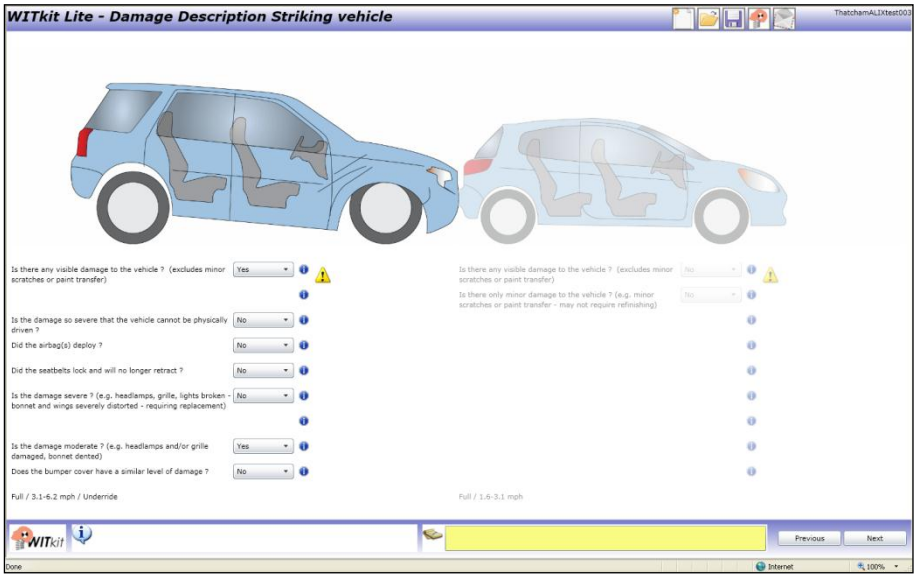
- Fill in the vehicle number plates in the VRM Lookup boxes. Wait for details to download.



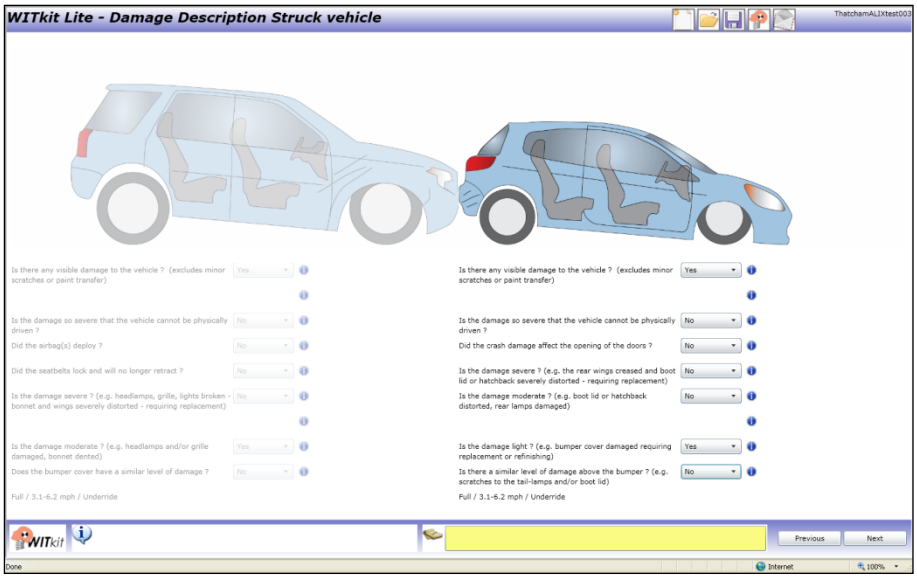
- The damage to both vehicles indicates the crash contact occurred across the whole vehicle front/rear.
- We are told that the crash occurred in the queue at a junction.
- We are also told that the driver was unaware of the crash before it happened.


WITkit Lite - Accident Description
Was the crash front into rear as shown below ?
Yes
Is the crash contact across the whole vehicle front/rear ?
Yes
Where did the crash occur ?
Junction
Was the car at the stop line or in the queue ?
Queue
Was the struck driver aware of the crash before it happened ?
No
Previous
Next

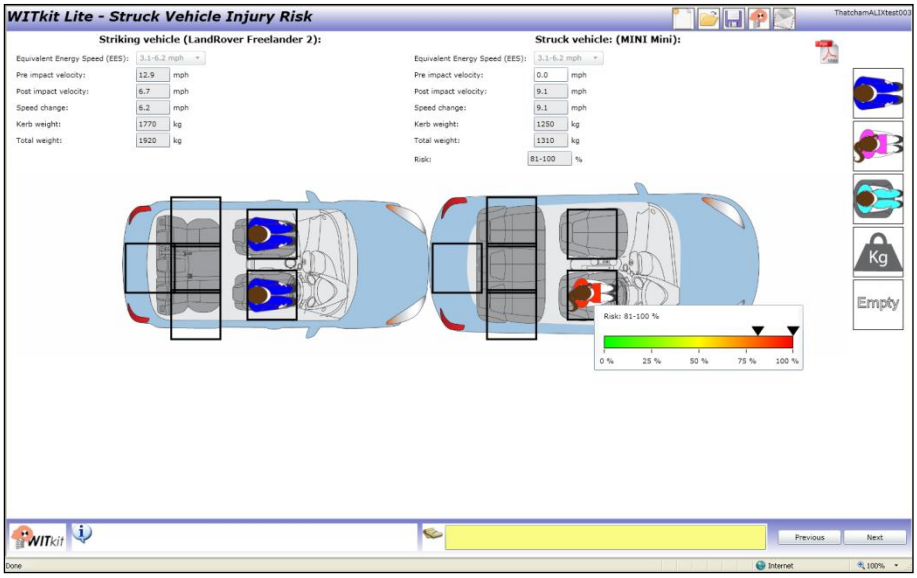
- TP Vehicle is said to have damage to the front grille and the bonnet, this suggests the crash may have been an underride.
- There is no information to suggest there is similar damage to the bumper so answer **no**.


WITkit Lite - Damage Description Striking vehicle
Is there any visible damage to the vehicle ? (excludes minor scratches or paint transfer)
Yes
Is the damage so severe that the vehicle cannot be physically driven ?
No
Did the airbag(s) deploy ?
No
Did the seatbelts lock and will no longer retract ?
No
Is the damage severe ? (e.g. headlamps, grille, lights broken - bonnet and wings severely distorted - requiring replacement)
No
Is the damage moderate ? (e.g. headlamps and/or grille damaged, bonnet dented)
Yes
Does the bumper cover have a similar level of damage ?
No
Full / 3.1-6.2 mph / Underride
Is there any visible damage to the vehicle ? (excludes minor scratches or paint transfer)
Is there only minor damage to the vehicle ? (e.g. minor scratches or paint transfer - may not require refinishing)
Full / 1.6-3.1 mph
Previous
Next

- We are told that the Insured Struck Vehicle has only got scratches on the bumper. This would be answered as light damage.
- With such light damage it must be assumed that the rear doors would have been easy to open.
- In this case as we are not told, assume there is **no** damage above the bumper.


WITkit Lite - Damage Description Struck vehicle
Is there any visible damage to the vehicle ? (excludes minor scratches or paint transfer)
Is the damage so severe that the vehicle cannot be physically driven ?
Did the airbag(s) deploy ?
Did the seatbelts lock and will no longer retract ?
Is the damage severe ? (e.g. headlamps, grille, lights broken - bonnet and wings severely distorted - requiring replacement)
Is the damage moderate ? (e.g. headlamps and/or grille damaged, bonnet dented)
Does the bumper cover have a similar level of damage ?
Full / 3.1-6.2 mph / Underride
Is there any visible damage to the vehicle ? (excludes minor scratches or paint transfer)
Is the damage so severe that the vehicle cannot be physically driven ?
Did the crash damage affect the opening of the doors ?
Is the damage severe ? (e.g. the rear wings creased and boot lid or hatchback severely distorted - requiring replacement)
Is the damage moderate ? (e.g. boot lid or hatchback distorted, rear lamps damaged)
Is the damage light ? (e.g. bumper cover damaged requiring replacement or refinishing)
Is there a similar level of damage above the bumper ? (e.g. scratches to the tail-lamps and/or boot lid)
Full / 3.1-6.2 mph / Underride
Previous
Next

- Using the Vehicle Occupancy information, insert the correct graphics into place. When this is complete place the curser over the injured occupant to view their personal injury risk.
- 81-100% injury risk for the female driver in the struck insured vehicle.
- Note that 100% injury risk is actually impossible. We can never be certain that a whiplash injury did or did not occur. This situation of 0 or 100% risk is being addressed in forthcoming software updates.

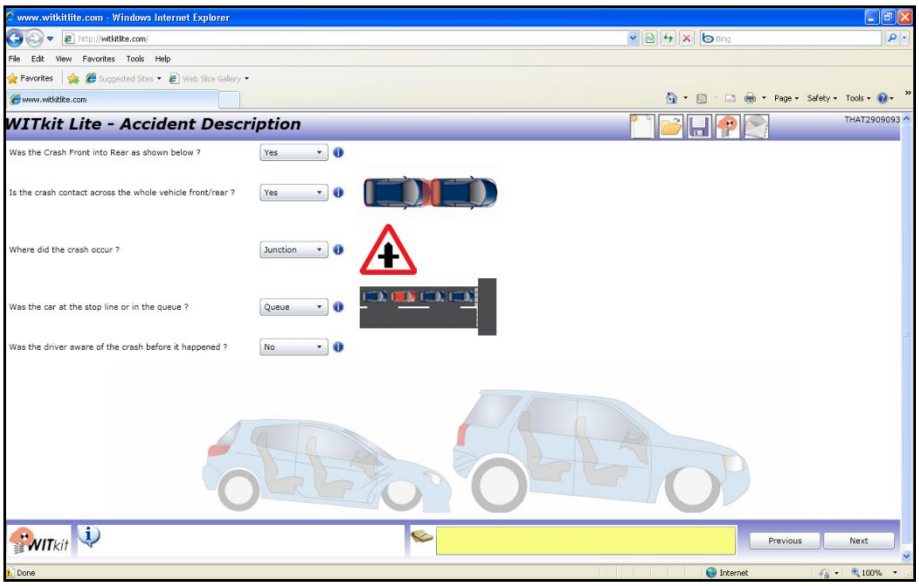


14.2 Exercise 2

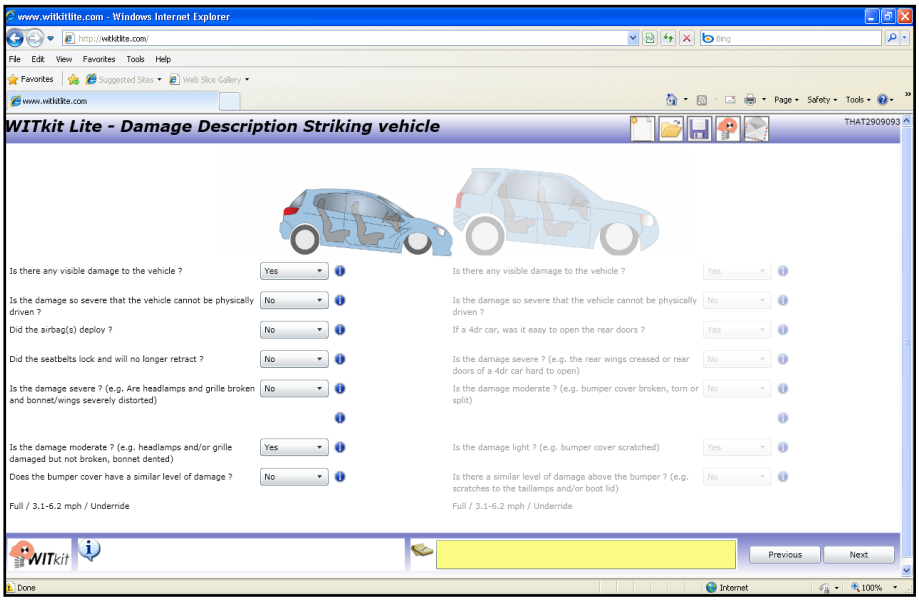
1. Incident Type – Accident – Car was left immobile.
2. Incident Cause – Third Party hit Insured in rear.
3. Incident Details – Mrs. Smith was in the queue at a junction when the Third Party hit the rear of her vehicle unexpectedly.
4. Insured Struck Vehicle – Licence Plate number: OY07FRL
   Land Rover, Freelander 2 2.2TD4 GS Station Wagon 5d 2179cc 2007
5. TP Striking Vehicle – Licence Plate number: OV08XMK.
   Mini 1.6 (116bhp) Cooper Convertible 2d 1598cc 2008
6. Insured Struck Vehicle Damage – Bumper cover is scratched.
7. TP Vehicle Damage – Damage to the front grille and the bonnet has a few minor dents.
8. Insured Struck Vehicle Occupancy – Female driver only.
9. TP Striking Vehicle Occupancy – Adult male driver and adult male front passenger.

14.2.1 Step by step guide to answering Exercise 2.

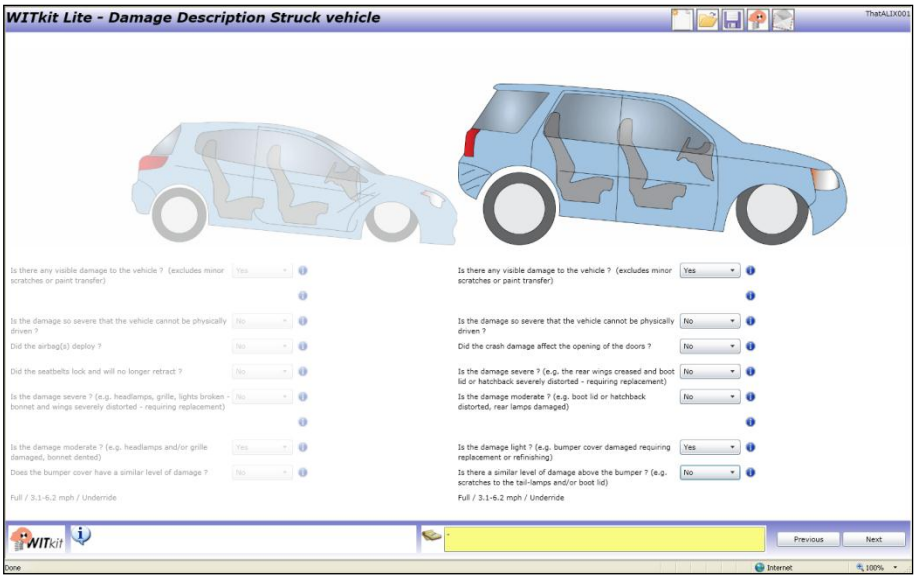
- The damage to both vehicles indicates the crash contact occurred across the whole vehicle front/rear.
- We are told that the crash occurred in the queue at a junction.
- We are also told that the driver was unaware of the crash before it happened.


www.witkitlite.com - Windows Internet Explorer
WITkit Lite - Accident Description
Was the Crash Front into Rear as shown below ?
Yes
Is the crash contact across the whole vehicle front/rear ?
Yes
Where did the crash occur ?
Junction
Was the car at the stop line or in the queue ?
Queue
Was the driver aware of the crash before it happened ?
No
Previous
Next

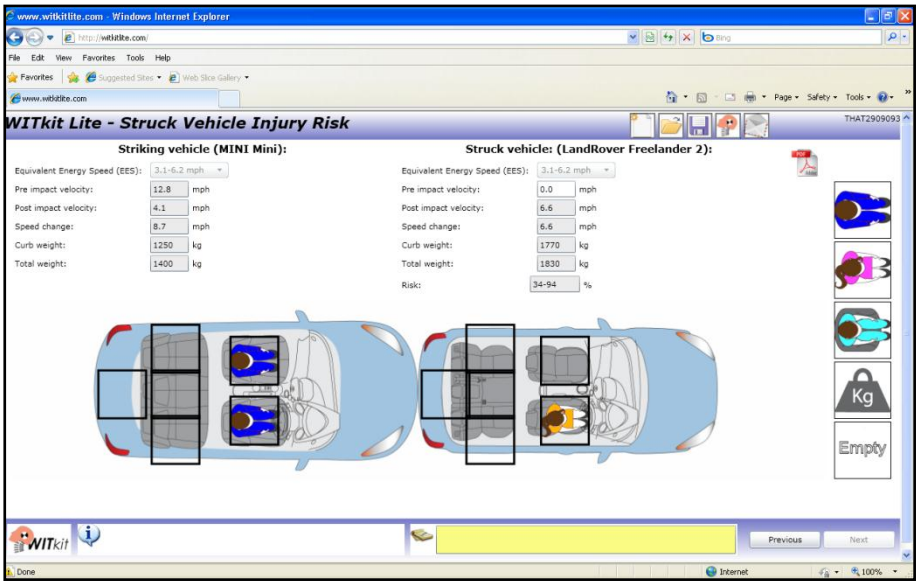
- TP Vehicle is said to have damage to the front grille and the bonnet, this suggests the crash may have been an underride.
- There is no information to suggest there is similar damage to the bumper so answer **no**.


www.witkitlite.com - Windows Internet Explorer
WITkit Lite - Damage Description Striking vehicle
THAT2909093
Is there any visible damage to the vehicle ?
Yes
Is the damage so severe that the vehicle cannot be physically driven ?
No
Did the airbag(s) deploy ?
No
Did the seatbelts lock and will no longer retract ?
No
Is the damage severe ? (e.g. Are headlamps and grille broken and bonnet/wings severely distorted)
No
Is the damage moderate ? (e.g. headlamps and/or grille damaged but not broken, bonnet dented)
Yes
Does the bumper cover have a similar level of damage ?
No
Full / 3.1-6.2 mph / Underride
Is there any visible damage to the vehicle ?
Yes
Is the damage so severe that the vehicle cannot be physically driven ?
No
If a 4dr car, was it easy to open the rear doors ?
Yes
Is the damage severe ? (e.g. the rear wings creased or rear doors of a 4dr car hard to open)
No
Is the damage moderate ? (e.g. bumper cover broken, torn or split)
No
Is the damage light ? (e.g. bumper cover scratched)
Yes
Is there a similar level of damage above the bumper ? (e.g. scratches to the taillamps and/or boot lid)
No
Full / 3.1-6.2 mph / Underride
Previous
Next

- We are told that the Insured Struck Vehicle has only got scratches on the bumper. This would be answered as light damage.
- With such light damage it must be assumed that the rear doors would have been easy to open.
- In this case as we are not told, assume there is **no** damage above the bumper.


WITkit Lite - Damage Description Struck vehicle
Is there any visible damage to the vehicle ? (excludes minor scratches or paint transfer)
Is the damage so severe that the vehicle cannot be physically driven ?
Did the airbag(s) deploy ?
Did the seatbelts lock and will no longer retract ?
Is the damage severe ? (e.g. headlamps, grille, lights broken - bonnet and wings severely distorted - requiring replacement)
Is the damage moderate ? (e.g. headlamps and/or grille damaged, bonnet dented)
Does the bumper cover have a similar level of damage ?
Full / 3.1-6.2 mph / Underride
Is there any visible damage to the vehicle ? (excludes minor scratches or paint transfer)
Is the damage so severe that the vehicle cannot be physically driven ?
Did the crash damage affect the opening of the doors ?
Is the damage severe ? (e.g. the rear wings creased and boot lid or hatchback severely distorted - requiring replacement)
Is the damage moderate ? (e.g. boot lid or hatchback distorted, rear lamps damaged)
Is the damage light ? (e.g. bumper cover damaged requiring replacement or refinishing)
Is there a similar level of damage above the bumper ? (e.g. scratches to the tail-lamps and/or boot lid)
Full / 3.1-6.2 mph / Underride
Previous
Next

- Using the Vehicle Occupancy information, insert the correct graphics into place. When this is complete place the curser over the injured occupant to view their personal injury risk.
- 34-94% injury risk for the female driver in the struck insured vehicle.
- Note that in this example the risk is much lower than in the previous example 1. The insured female driver is at lower risk if she is driving a larger heavier car.

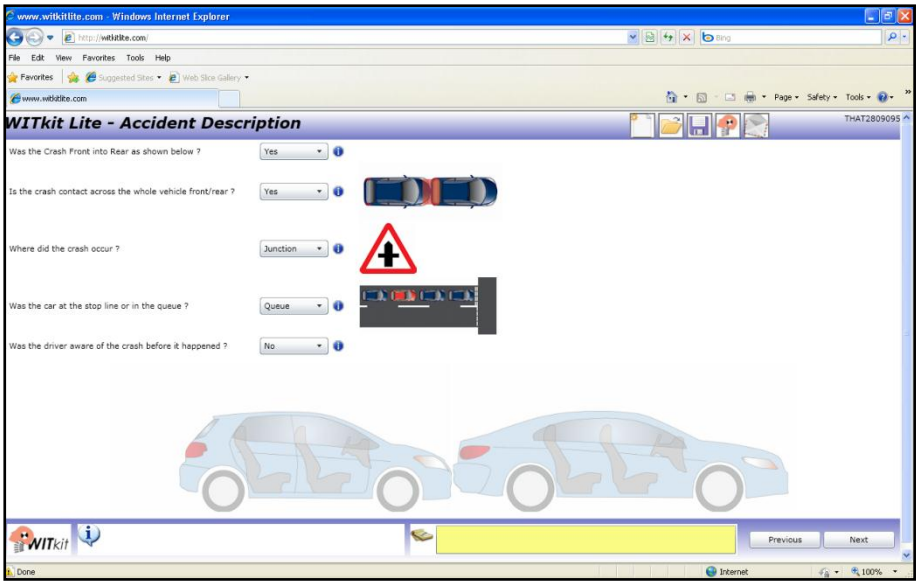


14.3 Exercise 3

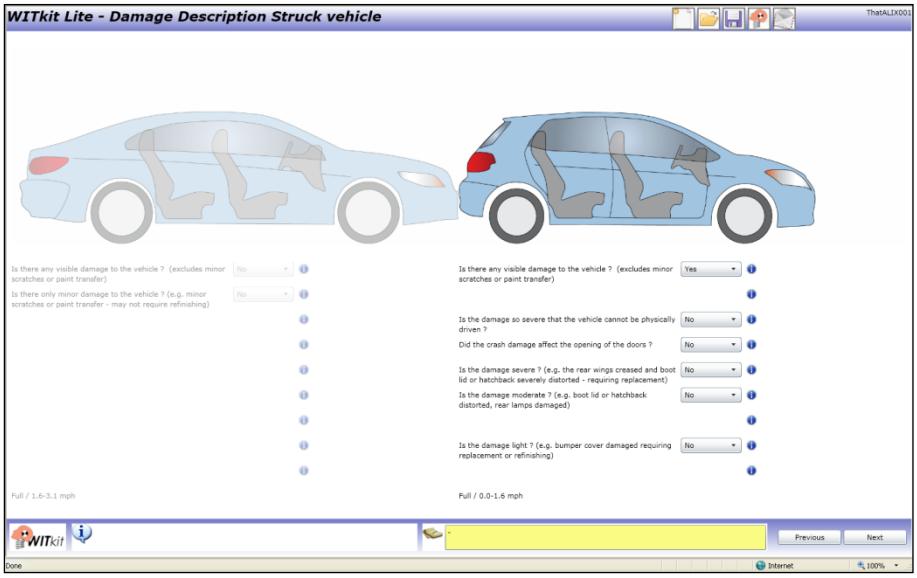
1. Incident Type – Accident – Car was left immobile.
2. Incident Cause – TP hit Insured in rear.
3. Incident Details – Mr. Humphrey was in the queue at a junction when TP hit the rear of his vehicle unexpectedly.
4. Insured Vehicle – Volvo S80 2.4 D SE 4d 2401cc, 2008
5. TP Vehicle – Audi A3 1.4T FSI Hatchback 3d 1390cc, 2008.
6. Insured Vehicle Damage – Bumper cover has minor scratches.
7. TP Vehicle Damage – No visible damage.
8. Insured Struck Vehicle Occupancy – Adult male driver with luggage in the boot.
9. TP Striking Vehicle Occupancy – Female driver, with a child of 7 years old in the back passenger seat.
10. Injured Insured Party – Driver is claiming whiplash.

14.3.1 Step by step guide to answering Exercise 3.

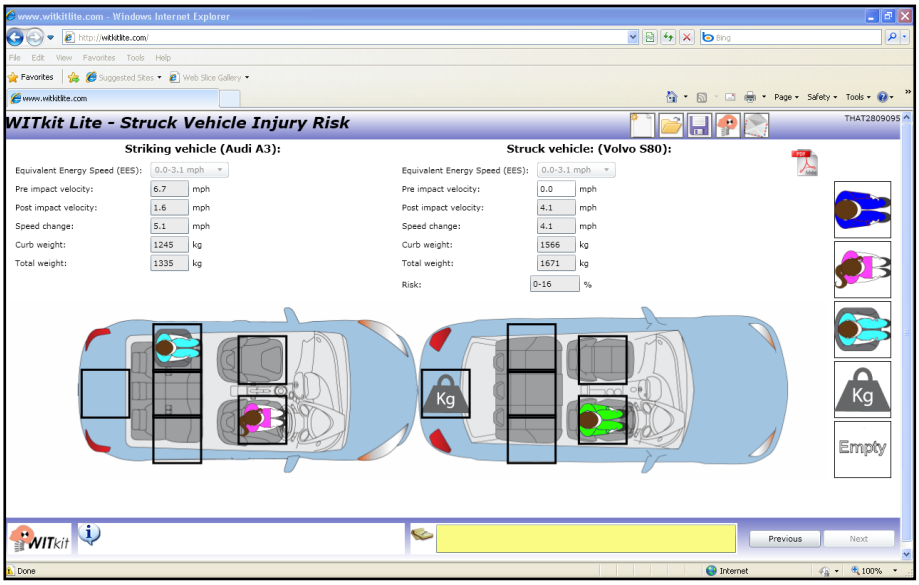
- The damage to both vehicles indicates the crash contact occurred across the whole vehicle front/rear.
- We are told that the crash occurred in the queue at a junction.
- We are also told that the driver was unaware of the crash before it happened.


www.witkitlite.com - Windows Internet Explorer
WITkit Lite - Accident Description
Was the Crash Front into Rear as shown below ?
Yes
Is the crash contact across the whole vehicle front/rear ?
Yes
Where did the crash occur ?
Junction
Was the car at the stop line or in the queue ?
Queue
Was the driver aware of the crash before it happened ?
No
Previous
Next

- We are told that there is no visible damage to the TP striking Vehicle, therefore the answer is **no** to this question.
- We are also informed that the bumper cover of the insured vehicle has only minor scratches. This should be inputted as light damage.
- There is no information provided as to whether there is a similar level of damage above the bumper, here you can answer that you **don't know**.


WITkit Lite - Damage Description Struck vehicle
Is there any visible damage to the vehicle ? (excludes minor scratches or paint transfer)
Yes
Is the damage so severe that the vehicle cannot be physically driven ?
No
Did the crash damage affect the opening of the doors ?
No
Is the damage severe ? (e.g. the rear wings creased and boot lid or hatchback severely distorted - requiring replacement)
No
Is the damage moderate ? (e.g. boot lid or hatchback distorted, rear lamps damaged)
No
Is the damage light ? (e.g. bumper cover damaged requiring replacement or refinishing)
No
Full / 0.0-1.6 mph
Previous
Next

- Remember to move the correct graphics into place including the weight symbol to represent luggage in the boot of the vehicle.
- 0-16% risk of injury for male insured driver in struck vehicle.



15.0 FAQ'S

15.1 What should you do if you have any problems using WITkit Lite?

- Send an email to witkitlite@dsd.at clearly stating the problem and your contact details. It usually helps to include a screen shot of the page you are having problems with.

15.2 What should we do if there appears to be a functionality problem with the WITkit software?

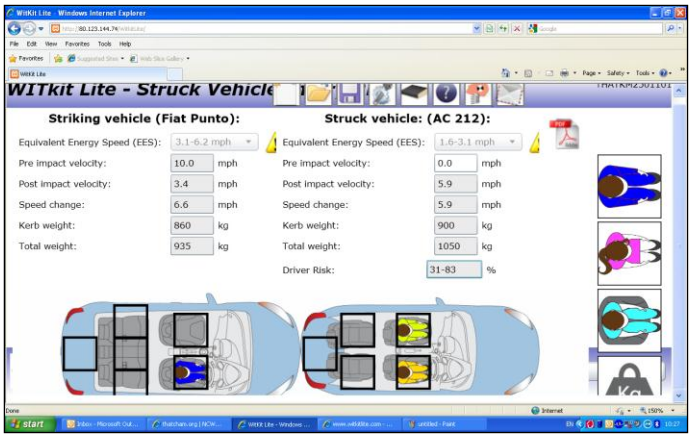
- Please report any functionality problems using the Feedback icon.

15.3 What should you do if the WITkit Lite page does not appear, but an Icon for Silverlight does?

- If this happens it normally means you need to download a programme call Silverlight which allows you to view all aspects of WITkit Lite. To do so you can either see section 2.2 of the user manual, or follow on screen instructions to begin the install.
- If problems persist please report your fault by sending an email to witkitlite@dsd.at, please include a screen shot and an explanation of your problem.

15.4 What should you do if the aspect of your WITkit page is not correct ?

- If the aspect of your WITkit Lite screen is not correct you need to change the screen resolution, it is recommended that the screen resolution should be 1024 x 768 when using WITkit.



Example of poor screen resolution

15.5 Can we update/delete the notes which are left on a WITkit assessment?

- Yes, you can update, add, and delete notes that are on WITkit cases.
- You need to manage your own cases for housekeeping of your notes and agree a strategy internally. If notes are incorrectly added/modified/deleted then the user is responsible.

15.6 What do you do if the VRM Lookup can not locate the vehicle?

- Try the manual search. If the VRM Lookup can identify the vehicle type and age, but will not load the details, try manually inputting these vehicle details.
- If your vehicle cannot be found by either VRM Lookup or by manual search, try using a close match e.g. a similar model that is newer.
- Please provide feedback about the missing vehicle and if we can find the details we might be able to include it. Use the 'Feedback' icon.

15.7 Why can the VRM Lookup not find some vehicles?

- VRM Lookup is a new feature and has complex linkages to commercial 3rd party databases. Some linkage issues have been found which are being addressed.
- Sometimes VRM Lookup might not be able to locate the vehicle, but try the manual search instead. You might be able to find the vehicle on the manual search, or a close match.

15.8 What should you do if the vehicle is more than 15 years old and therefore not on the WITkit database?

- Try the search anyway, either VRM Lookup or manual search. Many vehicles older than 15 years are included in the database and your vehicle might be there.
- If your vehicle isn't there, try using a close match e.g. a similar model that is newer.
- Please provide feedback about the missing vehicle and if we can find the details we might be able to include it. Use the 'Feedback' icon.

15.9 With offset collisions when do you say that the impact is across the whole of the vehicle as opposed to a particular corner?

- If the overlap between the two vehicles is more than half then enter this as damage across the whole vehicle width.
- If the damage covers less than half of the vehicle width this can be entered as an offset impact.

15.10 Why isn't there a queue option for the roundabout?

- Unlike the Junction question there is no option to choose a queue for a roundabout. This is because unlike a junction you are not required to stop at a roundabout. The driver's view is therefore wider as they view the oncoming traffic flow, as they look ahead earlier to ascertain when it is safe to move out. For this reason WITkit makes the assumption the driver is out of position.

15.11 What should you do if you only really know details of damage to one or other vehicle?

- If vehicle damage details are unknown for ***both*** vehicles you cannot proceed with WITkit Lite.
- If you know the details of damage to only one vehicle, then you should try to put the same level of damage on the vehicle you do not know about. Answer the questions about damage on the vehicle you do not have detail for and give answers that give a similar damage pattern, and give a similar speed at the bottom on the screen.
- Remember to make a 'note' on the case file so that your actions are clear.

15.12 If we are unaware or unsure of the answer to a particular damage question what is it best to do?

- If you know the details of damage to one vehicle, then you should try to match the same level of damage on the other vehicle. Answer the questions about damage and give answers that give a similar damage pattern, and give a similar speed at the bottom on the screen.
- Remember to make a 'note' on the case file so that your actions are clear.

15.13 What is meant by "visible damage"

- Visible damage refers to damage such as marks, scratches or broken components that would require repair or repainting.
- No damage *includes* any minor scratches and marks that would not require commercial refinishing.

15.14 Is there something in between light and moderate damage (i.e. scratches and torn or split)?

- No, you need to make a decision between light and moderate damage. The aim is to distinguish the overall level of damage.
- Try both options and see what the result is for each. The injury risk could be recorded as the half way point between the light and moderate levels of damage.
- People tend to over estimate damage to their vehicles so be cautious when describing damage so when faced with this situation the lower damage level might be more accurate.
- Remember to make a 'note' on the case file so that your actions are clear.

15.15 What does it actually mean when there is a yellow warning box which states "Damage is not compatible for the two vehicles"?

- WITkit estimates the speed required to incur the level of damage indicated in the questions. The speed is calculated for each of the vehicles. If the speeds for the two vehicles do not match the yellow warning symbol will be displayed.
- Whilst it is not a problem to have a mismatch of energy levels it is better to match the damage to get a realistic picture.

15.16 If you have entered the data as best you can based on the information available how can you resolve the yellow warning symbol "Damage is not compatible for the two vehicles"?

- Try alternative answers to see if you can match the speeds.
- A speed difference of one category is acceptable e.g. 0.0-3.1mph and 3.1-6.6mph.
- An exact match is best.
- Remember to make a 'note' on the case file so that your actions are clear.

15.17 If we know there is a passenger but we do not know their exact position where would it be best to place them on the injury risk screen diagram?

- Only the driver is given a different/separate assessment.
- All passengers (whether in the front or rear) are given the same risk assessment. It does not matter where you place the passenger.

15.18 If we are unaware of the gender of the passenger should we enter them as male or female?

- Female because this represents the highest risk level.

15.19 At what age should a passenger be regarded as an adult as opposed to a child?

- Children are aged 12 and under and this includes small children in child seats.
- Adults are aged over 12.

15.20 Why are some of the injury risk ranges so wide?

- Injury risk is dependent on many factors all with their own individual scaling width on injury risk. Where mass ratios are large (e.g. small car and large car) these factors accumulate and can produce high risk ranges.
- This situation of wide risk ranges is being addressed in forthcoming software updates.
- The use of the mid point of injury risk can still indicate injury risk.

15.21 Can WITkit calculate an injury risk for passengers where the Policy Holder has reversed into a third party vehicle?

- Yes, you can use WITkit in this type of case. Enter the details as normal. It will only calculate injury risk for the car that is damaged on the rear.
- Note that you must be careful to enter the details for the cars correctly. You must enter the details for the vehicle that is damaged in the rear as the struck car (even though it actually did the striking when it was reversing). Make sure that you enter the vehicle details and damage for the vehicle damaged in the rear as the struck car, and the vehicle damaged in the front as the striking car.
- Remember to make a ‘note’ on the case file so that your actions are clear.
- WITkit cannot calculate injury risk for the car that is damaged on the front.

15.22 Does it make any difference if the struck vehicle has a tow bar?

- A tow bar could cause increased levels of damage. Although it is unclear whether this would affect injury risk.
- Do not make any adjustment to the damage level questions.
- You should make a ‘note’ about the presence of a tow bar.

15.23 What should you do if the striking vehicle is a little older and has bull bars fitted? Should this make any difference in WITkit / our consideration of the injury risk calculation?

- A bull bar could cause increased levels of damage. Although it is unclear whether this would affect injury risk.
- Do not modify the responses to the damage level questions.
- You should make a 'note' about the presence of a bull bar.

15.24 What should you do if the car has an LPG conversion?

- Select a car of the same make, model, and year. However to allow for the additional weight of the LPG conversion you should select the heaviest vehicle in the range.